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# East Europe Report

ECONOMIC AND INDUSTRIAL AFFAIRS

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22 July 1985

## EAST EUROPE REPORT

### ECONOMIC AND INDUSTRIAL AFFAIRS

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INTERNATIONAL AFFAIRS

CEMA COUNTRIES' COOPERATION PLANS OUTLINED

Long-Term Programs

Warsaw RZECZPOSPOLITA in Polish 9-10 Mar 85 p 7

[Text] The CEMA countries have gained rich experiences in the area of carrying out multilateral, long-term programs of cooperation. By now basically multilateral agreements relating to long-term guideline programs of cooperation have been concluded. More than 230 comprehensive agreements and treaties have been signed embracing such areas of cooperation as science and technology and the economy. Ten agreements have to do with constructing new projects, 12 with expanding and restructuring already operational enterprises. Four agreements are on geological prospecting, and over 200 are aimed at broadening specialization and cooperation in production and in science and technology.

These long-term programs are already bearing fruit. The CEMA countries' electrical energy supply has become more reliable; the quality and efficiency of mutually supplied machines and tools has improved; the processing of raw materials and fuels has also improved, especially for crude oil; local raw materials are being used for a greater variety of purposes and more effectively. Active exchange and joint selection of new varieties of crops and species of livestock have been started. The capacity of the main transportation arteries of the CEMA countries has increased.

Building on previous experience, the USSR has proposed jointly elaborating on a bilateral basis long-term programs for developing economic and scientific cooperation up to the year 2000. So far, such documents have been drawn up and signed between the USSR and Poland, the GDR, Cuba and Vietnam. Similar programs with other CEMA states are in the process of being developed.

The CEMA countries are being confronted with ever newer problems which require joint solutions on a long-term basis. For this reason the need has arisen for new comprehensive programs which would supplement the long-term agreements. The 39th Session of the CEMA, held in 1984, examined and approved "long-term comprehensive undertakings aimed at meeting the rational energy, fuel and raw materials needs of the CEMA countries" which would supplement and extend the long-term programs in this area.

Under the decision of the economic conference of the CEMA states, in the next few years the following programs will be elaborated and approved: a program

for constructing nuclear power and thermal stations, a comprehensive program for scientific and technical progress, a program for conservation and rational use of material supplies. All programs cover the period to the year 2000 and provide for more effective mobilization of countries' own resources as well as expanded cooperation. The construction of a large number of major economic projects has been set, the implementation of which, according to preliminary estimates, will require expenditures of 45-55 billion convertible rubles in the areas of energy, fuel and raw materials alone.

These include the construction in the USSR of a gas pipeline from Hamburg to the western border of the USSR, and of the Hamburg gas extraction complex to increase deliveries from the USSR to the European CEMA countries; cooperation in coal mining and modernizing the coke and chemical industry in Poland; giving Czechoslovakia the capacity to extract and process magnesium, and Cuba the same capacity for nickel and cobalt; cooperation to develop mining of non-ferrous metals in Mongolia, Vietnam and Cuba, bauxite in Vietnam and phosphates in Mongolia. Interlinked energy systems of the CEMA countries will be developed.

These joint programs will lead to a closer link between the coordination of economic and scientific-technical policies and the coordination of plans. Assuring a close link with national comprehensive programs, the joint programs ultimately reflect to the greatest degree the coordination achieved in economic plans of the CEMA countries.

#### Cooperation in Informatics

Warsaw RZECZPOSPOLITA in Polish 1 Apr 85 p 4

[Article by Doc, Dr Krzysztof Urbaniec]

[Text] The economic crisis in the beginning of the 1980s was painfully felt in many areas of Polish life, so that the situation in the area of computers was pushed to the sidelines of society's awareness. These are the facts: a decline in investment in computers to a level of 0.33 percent of overall investment expenditures, stagnation, and in 1982 even a definite decline in the number of computers, from 1980 to 1982 a 20-percent decline in employment in computer centers. It is especially dismaying to compare these trends with data from other countries: the world leaders put 2.5-3.5 percent of their total investments into computers, the number of minicomputers grows by 20-30 percent per annum, in Czechoslovakia and the GDR the level of computerization (the ratio of the number of computers to the number of people employed) is already 2-3 times higher than in Poland.

In the last 15 years of our century computerization is indisputably one of the strategic factors in the development of civilizations, the importance of which is obvious in the rivalry between the world's political camps, and also between individual countries. These alarming trends in the situation with regard to computers in Poland must be reversed if we are not to lose a chance at a significant share of the international division of labor for our economy. What we must do now is realistically consider the goals of computerization and methods to achieve these goals.

In the early stages of the introduction of computers into Poland, commercial contracts (importing hardware, purchasing licences) with western companies such as ICL and IBM were very important. At the same time, however, Poland helped prepare and in 1969 signed an agreement on cooperation among the socialist countries in the field of computer technology, thereby joining the International Commission on Computer Technology (ICCT).

Experts from the Coordinating Center estimate that the data processing needs of the socialist countries from 1985 to 2000 will require a 3-fold increase in the number of large computers, an 8-fold increase for minicomputers and a 28-fold increase for microcomputers. Achievement of this progress in computerization would enable us by the year 2000 to reach a decent level of computerization for the economies of the socialist countries: about 1,600 computers (of all types) per 10,000 workers.

In Poland we still do not have reliable studies which would enable us to determine whether we will be able to adopt such a rate. Some of our experts are inclined to the view that we will not be able to do this, since in the near future it is difficult to conceive of a figure for investments in computers higher than 1-1.2 percent of total investments. That would mean that in the year 2000 we would only have less than one tenth of the number of computers put forward by the ICCT experts. Can we accept such a prospect without protest?

It may be considered that for Poland a problem even greater than the lack of forecasts of the number of computers is the fact that the government has no overall program for the development of computerization. This stagnation is costly, since we are rapidly falling behind not only the world leaders in this area, but also our neighbors in the CEMA. On the other hand, it is understandably difficult to risk a massive computerization of an economy which is by no means receptive to innovations. However, we cannot neglect efforts to stabilize personnel potential and improve the skills of people working in computer centers.

With regard to technology and hardware, we certainly cannot rely on imports from the West, especially since the work of the ICCT has led to large-scale computer production in the CEMA countries based on unified technical standards. We also need to collect information on how other socialist countries are introducing computerization, what their positive and negative experiences are in this area. There is no doubt that from some countries we can learn a great deal. For example, for several years Hungary has been implementing plans to develop computer systems and computer education of the public, while their methods of economic and industrial management are very similar to our own. The GDR, the most "computerized" of the socialist countries, has acquired valuable experience in applying computers to industry, including their own applications to industrial systems.

A forum for the exchange of experience in this area is one of the organs of the ICCT: the Council on the Applications of Computer Technology. Under the charter its purpose is to work toward a unified technology policy and to coordinate cooperation among the socialist countries with a view to effective use of computer technology in national economies.

The ninth and latest meeting of the Council on Applications took place on 21 to 25 January of this year in Warsaw, with delegations attending from all the countries participating in the ICCT: Bulgaria, Czechoslovakia, Cuba, GDR, Poland, Romania, Hungary and the USSR. It was devoted to an assessment of joint projects carried out in 1984, endorsement of the plan of work for 1985 and preliminary discussion of guidelines for work for the period 1986-1990.

In 1984 approximately 50 working meetings took place between participants in the work of the Council. Of the more than 100 areas where work is currently being done under the plan, over 30 have been completed. Their results are now available to the countries which participated in carrying out these projects. These completed projects included 19 computer software packages for such applications as operational control and quality control in the machine industry, controlling clusters of digitally controlled machines, designing control systems for technical processes, and education in colleges. Cooperation will be similar this year, with a higher number of finished projects, since this is the last year of the 1981-1985 Five Year Plan.

The following priority orientations for 1981-1985 have been agreed upon:

- computer systems to assist engineers;
- technical control systems;
- complex computer systems for enterprises and industrial and non-industrial units;
- training for the field of computer applications.

The essential work of the Council on Applications will be accompanied in coming years by organizational work, initiating commercial exchange of practical computer software within the CEMA. Polish software producers - Computer Technology Application Centers, some computer producers, some institutes and also marketers, especially PHZ METRONEX - will have to make a great effort in order not to lose their chance for a share of the trade in this unusual ware, which is in fact one of the forms of technical thought.

#### Cooperation in Construction

Warsaw RZECZPOSPOLITA in Polish 1 Apr 85 p 2

[Text] Cooperation with other countries is one of the ways of developing construction, reducing its cost, and thereby meeting society's needs sooner in the area of housing construction, as well as building elements of the technical and social infrastructure, including schools, hospitals and kindergartens.

A session of several days of the Council of the International Scientific-Technical Information for Construction, working within the framework of the CEMA Standing Commission on Cooperation in Construction, was concluded on 29 March with the signing in Warsaw of a protocol on a work plan for the years 1986-1990. The session showed that there are many areas in research and development of great importance for improving the efficiency of construction techniques in all CEMA countries.

During a meeting between the heads of the Ministry of Construction and Construction Materials and delegates from member-states of the Council, the chairman of the Council, Dmitrij Zworykin, emphasized that in the last 10 to 20 months much had been done to improve the flow of information between the CEMA countries. At present work is being concentrated on setting up a data bank on progress in construction throughout the world. Some countries have organized exhibitions of construction progress in other countries. An International Automated Data System for Construction has been created. Stanislaw Kukuryka, Minister of Construction and Kurt Borch, head of the Construction Department of the CEMA Secretariat, took part in the meeting.

#### Cooperation in Nuclear Power

Warsaw RZECZPOSPOLITA in Polish 1 May 85 p 8

[Article by Jadwiga Korzeniowska]

[Text] The need to conserve conventional energy raw materials and the need for a new approach to energy problems are felt with ever greater frequency and intensity throughout the world. Increasingly the world is turning to nuclear energy, and successfully, as is shown by the fact that in 1983 throughout the world 317 nuclear power stations were operating.

Their present share of the production of electricity is: in the USSR 12 percent; in the USA and Canada 13 percent; in Switzerland 30 percent; in Sweden 43 percent; and in France exactly 50 percent.

Poland is also taking up the path of producing electricity with nuclear power plants as early as this century, since, according to experts, the real sources of energy for our country are coal and nuclear power. This was discussed at length in the Polish parliament on 21 March of this year. But we must realize that we are 10-20 years late in entering the age of nuclear power. Among the CEMA countries only Poland, Mongolia and Vietnam have no nuclear power plants. In Bulgaria, for example, almost 27 percent of total electricity output is produced by nuclear power plants.

Vice-premier Zbigniew Szalajda, who on behalf of the government presented the elements of the fuel and energy situation until the year 2000 to the deputies, as well as the main orientations in the development of nuclear energy, strongly emphasized in his statement that "proper socio-economic development requires that the economy be supplied with fuel and energy. In a modern economy the fuel and energy system becomes the most important element in material-technical infrastructure."

At the same time, with every passing year electric energy consumption will grow as a natural consequence of economic development. According to present estimates, it will be necessary to build enough electric power plants by the year 2000 to produce an additional 21,300 to 25,000 megawatts.

Where can we get these extra kilowatts and megawatts when we already know that it will not be possible to cover such an increase in fuel consumption

for energy with coal and lignite? The answer is obvious, i.e. that the only realistic source of additional electric energy can only be nuclear fuel, as it is in the rest of the world. We must clearly realize that Poland's energy future is tied to the development of nuclear energy.

This direction of energy development in terms of the expenditures required for the construction of nuclear power plants, as has been stated by specialists, and this was also raised at the plenary session of the Sejm by many deputies, requires no more capital investment than conventional power plants, and at the same time, the unit cost of energy produced is significantly lower.

According to data of the International Atomic Energy Agency, prepared for 5 West European countries, the cost of producing electricity in nuclear power plants is lower than producing it in coal-powered plants by 35 percent. Soviet data indicate 12 percent, while studies prepared for Polish conditions speak of a figure of 12 percent. This is thus an advantageous solution from every point of view, including a more rational use of our existing coal deposits.

Proven coal reserves in Poland are estimated at 63 billion tons, and long-term reserves 100-1200 meters below the surface are estimated at 100 billion tons, but that does not mean that they are accessible to mining given the present level of extraction technology. This is a very complicated problem, on which a group of scientists is working. Further increase in coal extraction is possible only within certain limits. Without nuclear power accounting for a share of national energy production, it is difficult to imagine how we can solve the energy crisis, and then achieve a positive balance in electric energy.

Under the government's program, by the year 2000 three nuclear power plants will be operating in Poland, with a total output of 7,860 megawatts, or 9,860 (variation 2), as well as one nuclear thermal plant. Construction work is continuing on the Zarnowiec electric power plant, unfortunately it is far behind schedule. It is now expected to be completed in 1994, when it will produce 1,860 megawatts. The government program stipulates that in 1987 we will begin construction of a second nuclear power plant (Kujawy or Warta) with a capacity of 4,000 megawatts; the first block should begin operation on schedule in 1994. We should begin construction of a third nuclear power plant with similar capacity in 1989, and studies to determine the best location for it should be finished early next year.

Present calculations indicate that nuclear power plants in Poland will account for 39 percent of the increase in energy output from 1986 to 2000, and from 1996 to 2000 they will account for 60-70 percent of the increase. That will be a big shot in the arm for Polish energy needs. If we consistently carry out the program of nuclear energy development, it will mean that Poland has taken up the path of modern development and that it has found a way to modernize various sectors of the economy.

The government program speaks of reconstructing and increasing the national potential to produce specialized machines and energy equipment, both for national needs and for export. We are in a relatively good starting position to do this: we have the necessary scientists and highly trained engineers,

all we have to do is use this undoubted and considerable asset skillfully and efficiently, creating the conditions for work and development.

Polish scientists for many years have participated in the work of scientific centers conducting nuclear research in the Soviet Union and other CEMA countries and have achieved significant successes there. For the last 5 years, as part of cooperation between the CEMA countries in developing nuclear energy facilities, Polish construction enterprises have helped build nuclear power plants in the Soviet Union, Bulgaria, Czechoslovakia and Hungary.

We are now important partners in the world market of producers of nuclear power plant equipment. In implementation of the "Agreement on Multilateral and International Specialization and Cooperation in Production in Addition to Mutual Deliveries of Equipment for Nuclear Power Plants" signed in 1979 by the CEMA countries and Yugoslavia, Poland is producing the Hindukusz system for taking measurements within the cores of power plant reactors and the Sejwal radiation control system for nuclear power plants.

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ALBANIA

## EFFORTS TO IMPROVE FODDER, MEAT PRODUCTION

Tifana BASHKIMI in Albanian 18 May 85 p 2

[Article by Llazar Parangoni: "The Strengthening of the Fodder Base--The Main Factor for Increasing Meat Production"]

[Text] The implementation of the great tasks in the livestock sector, especially the increase of meat production, is one of the main fronts for the agricultural workers. There are some factors that are influential in this field. The supplying of the fodder base in a balanced manner during the whole year is among the most important. In order to further advance work and promote achievements in this sector, the Politburo of the Party Central Committee recently issued a special decision. The tasks that stem from this decision were analyzed and programmed in the aktiv which the Council of Ministers held some days ago at the Institute of Fodder and Grasslands in Fushe-Kruje. In the article that follows, we report on this matter.

### Scientific Discipline, Persistent Work

The National Aktiv organized by the Council of Ministers analyzed the important decision adopted by the Party Central Committee Politburo "On the Strengthening of the Fodder Base for Livestock and Measures for Increasing Meat Production." The execution of the tasks stemming from this decision deals with the improvement of the well-being of the people.

In our country, as a result of the implementation of the correct line of the party and of Comrade Enver Hoxha's teachings on the comprehensive development of agriculture, noticeable successes were achieved in the livestock sector. There are many agricultural cooperatives and sectors which are obtaining high yields in livestock production, such as the "29 November" agricultural enterprise in Lushnje, the "Red Star" agricultural enterprise at Kamze in Tirana, the Bushat agricultural enterprise and the Zootechnical Station in Shkoder, the Sukth and Gose agricultural enterprises in Durres, the "Clirimi" cooperative in Fier, the NRGJ in Korce, the Gorre and Golem agricultural cooperatives in Lushnje, the Lapardha agricultural cooperative in Berat, the Bregu i Mates agricultural cooperative in Lezhe, the Zharreze agricultural cooperative in Fier and so forth, and other agricultural cooperatives at the district level such as that of Lushnje among those which have distinguished themselves in the development of livestock in general and the organization of

production in particular. But, seeing the conditions and great opportunities existing in our country, the Aktiv assigned the task that the experience won in this section be further promoted in all agricultural cooperatives. Among all the factors that are influential for the progress of livestock, so as to make the radical shift required by the party, matters related to the fodder base, especially the increase of fodder yields, are determining factors. Without providing this important factor, there is no increase of livestock production, no increase in the number of livestock and no improvement of their breed.

Now, it is time, especially in the plains area, to pass to a new and more advanced stage in the feeding of livestock that satisfies, at all times, their biological needs with nutriment, that is the feeding of livestock in grassland depositories and stables. In the execution of this way of feeding the experience of the Zeotechnical Station in Shkoder is so convincing and it is possible that it can be implemented in any agricultural cooperative and district. In order to implement this [way of feeding], the aktiv stressed the need to give great importance to corn and alfalfa, the two basic crops in the fodder structure, which produce high yields and have more nutritive values.

There are many reserves and great opportunities for increasing fodder production and standardizing the sowing structure of food rations for livestock. The sowings, which are experimentally and practically combined, without additional investments, yield 10 to 27 percent more production and improve the quality of the nutriments. Besides this, the establishment of a more correct fodder structure increases the coefficient for the use of the soil so as to obtain two products within the year, especially in the lower areas under irrigation. This is the basis for the high yields achieved by the fodder workers at the Zeotechnical Station in Shkoder, the Gose, Sukth, Llakatund and "Clirim" agricultural enterprises and so forth, and at Lapardha, Bushat, Jube-Sukth, Zharre and other agricultural cooperatives. In order to generalize their experience, the aktiv assigned the task for expanding second sowings on about 100,000 hectares, giving priority to corn, cabbage, combined green fodders and so forth, along with the expansion of sowing of interposed fodder crops such as broad beans, peas and so forth on about 30,000 hectares which constitute a great reserve for increasing concentrates. In this field, the Lukove agricultural enterprise is giving a good example.

The participants in the aktiv stressed the need for the unification and use of the material base and of chemical fertilizers, as it is done for other crops. Many agricultural cooperatives show this concern for the fodder base; therefore, they obtain high yields and also fulfill their tasks for livestock products. Greater objectives have been assigned to this work front this year; the implementation of these tasks begins with the preparation of spring silage and corncob silage and extends to the improvement of grasslands and the doubling of the tasks for the collection of dried grass and so forth. Besides these activities, it is required to organize the fodder processing centers as soon as possible, mainly by chemical means, as it is done at the Bradashesh agricultural cooperative which has established a special line with its own forces. For this purpose, tasks are also assigned to the workers of light industry and the food industry for the production of simple pieces of equipment for a more qualitative treatment of foodstuff and for the mechanization of fodder crops.

The conditions of our country dictate the necessity for a harmonious development of livestock in all agricultural cooperatives so that, along with the intensive development of the concentration of livestock, we will maintain the popular traditions in regard to the keeping of smaller livestock herds. In this direction, uncorrect attitudes have been observed, underestimating the well known tradition of our people. In many districts, such as Tirana, Puke, Elbasan and others, the agricultural cooperatives have almost abandoned the keeping of chickens; while, in Fier, Durrës, Vlorë and other districts, pig breeding takes place only in some agricultural cooperatives. The main thing is that all workers, cadres and specialists must have deeply rooted in their mind the party recommendations that meat production is one of the main tasks for the agricultural sector during this year and during the coming five-year plan.

Regardless of the successes achieved in the past 2 years, the aktiv stressed, we need to work more in order to reach the indicators of the Gose, Roskovec and Lezhe agricultural enterprises and those of the Gorre, Bushat and Bregu i Mates agricultural cooperatives in increasing the production of pork. There are great reserves also in sheep and goats because now the majority of the agricultural cooperatives are showing greater concern for milk, underestimating meat.

The execution of the tasks assigned by the Politburo decision, which were analyzed at the aktiv, requires that initiatives be undertaken everywhere for obtaining high yields in fodder production. In this direction, a broad field of action is open before the workers of the scientific-research institutions in order to give more support to the livestock sector.

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CZECHOSLOVAKIA

FEDERAL STATISTICAL OFFICE FINAL ECONOMIC REPORT PUBLISHED

Prague STATISTIKA in Czech No 3, 1985 pp 128-142

[Article: "Report of the Federal Statistical Office on National Economic Development and State Plan Fulfillment in the CSSR in 1984"]

[Text] The performance of the Czechoslovak economy in 1984 contributed significantly to the implementation of the strategy of the 16th CPCZ Congress. The plan in industry, agriculture, construction, transportation and other sectors was overfulfilled. The rate of economic growth sped up further. The process of intensification and increasing the efficiency of the economy continued. This made it possible to maintain and improve the living standard of the population and to increase their social certainty.

The implementation of the resolutions of the 10th CPCZ Central Committee Plenum concerning the upgrading of the tasks of the state plan for economic development also played a role in the above mentioned performance. The overfulfillment of the plan also resulted in part from the organizational and political work of party, union, state, economic, and public agencies and organizations. Increased worker initiatives and the fulfillment of socialist commitments undertaken to honor the 40th anniversary of the culmination of the national liberation struggle of the Czechoslovak people and the liberation of our country by the Soviet Army have also been important.

Economic development was assisted by the increasingly effective impact of intensification factors. Labor productivity increased, material costs have declined as a percentage of output, the wage intensiveness of adjusted value added has declined, and planned profit targets have been exceeded.

In line with efforts to increase our participation in international socialist economic integration, goods exchanges have expanded with socialist countries to a point where they are exceeding planned targets. Our indebtedness in hard currencies has also been reduced.

The increased growth rate and efficiency of resource formation in industry, construction, and agriculture were responsible for an increase in gross national income in comparison with 1983 of 3.2 percent.

Industrial production grew by 3.9 percent, agricultural production by 3.6 percent including a record grain harvest, and construction work increased by 1.7 percent.

The increased economic growth rate facilitated a further increase in personal and public consumption. Deliveries of goods for the domestic market increased from 1983 and this, together with an increase in money incomes of the general public increased personal consumption by 2 percent in comparable prices. Retail trade turnover increased by 3.1 percent over 1983 and the stability of the domestic market improved. The public consumption for the population increased by 5 percent from the previous year. The amount of resources allocated to environmental protection increased. The rate of increase in national income also made possible the allocation of more resources to capital investment.

The achievement of comprehensive and balanced plan fulfillment, as well as the elimination of economically unjustified differences in the efficiency of individual plants, enterprises, VHI, and JZD are both areas where better performance will yield more rapid development. Other areas of underutilized potential include the utilization of economic and R&D potential, labor resources, the value added to power, raw material and material inputs, the technical sophistication and quality of products, and the adaptation of production to demand on foreign and the domestic market.

The exploitation of the above areas of underutilized capacity and the consistent implementation of the Set of Measures for Improving the Planned Management System of the National Economy in administrative work represent important resources for fulfilling tasks in 1985, and for the fulfillment and in some cases overfulfillment of the Seventh 5-Year Plan.

#### Research and Development

The implementation in production of completed research projects has contributed to production innovation, increased quality and technical sophistication of production, increased labor productivity, and reduced consumption of materials, power, and fuel. The value of new products as a percentage of total value of goods produced increased by 18 percent from the previous year.

Of a total of 365 R&D projects in the state plan for technical development some 357, or 97.8 percent, were completed. Successfully concluded projects include:

--the development of a prospective computer system based on a Unified system of electronic computers, production technology for bipolar circuits of greater complexity, the development of lighter steel construction systems for industrial buildings, the development of the RK 5000 bucket ladder excavator, the development of the production

technology for polyphenylenoxide, the production technology and applications for modular concrete wall and roof units, and the development of a new line of casual clothes.

A total of 829 items of the state plan for technical development were incorporated into production. These items formed the basis for the initial production of an innovative automated break spinning machine, new production technology for oxygen converter steel at the Trinec Ironworks of the Great October Socialist Revolution, an innovative line printer, the production of a 3-channel memory oscilloscope, an optical electronic reflex scanner controlled by one-way valves, frequency regulated drives for synchronous motors, printed and tufted flooring fabrics, and the M 40 manipulator for handling sheet and large surface area components.

The fulfillment of state priority programs resulted in relative savings of 2.5 million tons of standard fuel and relative savings of almost 500,000 tons of metal. A total of 1,169 industrial robots and manipulators were built, and their installation did away with 2,500 jobs in dangerous environments and doing physically tiring work.

Worker initiatives were evident in increased numbers of inventions and improvement suggestions and in an increase in their social acceptance. During the year 9,100 invention applications were submitted, an increase of 4.4 percent, and 2,950 inventions found practical application, an increase of 3.2 percent from 1983. The number of submitted improvement suggestions increased by 7.1 percent, and the number of such suggestions that were used by 6.2 percent. The potential still exists for the more rapid implementation of accepted inventions and improvement suggestions.

Increasing cooperation with the socialist countries, and mainly the Soviet Union, has had substantial importance for research and development. This cooperation has been aimed mainly at the more effective utilization of fuel, power and natural resources. It has developed in the field of electronics, chemical engineering, the development and production of industrial robots and manipulators, including robotized complexes and flexible automated systems for various areas of the national economy. It has included the chemicalization and biochemicalization of agricultural production and environmental protection.

Despite the progress made in 1984 in R&D there remain underutilized possibilities in its rate of growth and the practical application of its results. The results so far achieved are not in full accord with the capacities of the R&D base or the requirements of the national economy, and especially with the demands of the foreign and domestic markets.

#### Capital Investment

Exclusive of Project Z and the population, investment work and deliveries amounting to Kcs 147.9 billion were made in the economy. This was composed of construction work valued at Kcs 84.1 billion and deliveries

of machinery and equipment of Kcs 63.8 billion. Planned capital investment volume was exceeded by 4.1 percent.

The fuel and power complex accounts for most of the investments in industry. Targets were exceeded for investments in agriculture and in national committee management, most of which is earmarked for comprehensive housing construction.

Of the total of 106 critical facilities established as priority tasks for 1984 in terms of experimental startup, 99 were in fact put into operation. The facilities started include those for maintaining and increasing coal production in the North Bohemian Brown Coal region, especially at the Merkur, M. Gorkij, Sverma, Vrsany, and Czechoslovak Army mines, compressor stations on the transit pipeline, unit No 1 of the V-2 nuclear power plant at Jaslovske Bohunice, coke battery No 3 at the Kosice East Slovak Ironworks, the billet mill at the Kladno SONP, the production of color television tubes at Roznov Tesla and the glass works at Valassky Mezirici, the railway transit point between V. Kapusany and Uzhorod, the super-highway-railway bridge across the Danube, a new plant for producing printer's inks and lacquers at Hostivar, a thin paper line in the Hostinne Krkonos paper mill, the production of fodder proteins in the Paskov Celuloz plant, the production of mineral fibers in Bohumin, a pharmaceutical pavilion in Hlohovce, the increased production of technical yarns in Hnusti, and other facilities.

Nonproduction facilities include operational section III of route C of the Metro, an internal medicine facility at the Plzen teaching hospital, the Teplice water pipeline, the Chomutov laundry, and the electrotechnical faculty in Bratislava.

Some of the projects established as priority tasks for capital investment did not keep on schedule. These include 2 facilities of the 5th project at the M. Gorkij mine of Stage II, the Plzen heating plant, a drop forging facility in Trnava, the reconstruction of the workshops of the Czechoslovak railways in Nymburk, the reconstruction and expansion of the workshops in Vrutky, and of the meat combine in Levice. These shortcomings were caused mainly by failures in territorial and design preparations and, in some instances, by inept administration and planning work in the investment process. Problems have also persisted in getting new facilities to operate according to their design parameters.

The number of noncomplete construction projects and balances of the budgeted costs for noncompleted projects declined by 2.0 percent during the year. Even so, the number of noncomplete construction projects is too high.

#### Industry

Industrial production in centrally planned industry increased by 3.9 percent from 1983, making achieved increases in production 1.4 percent lower than projected by the plan. The plan for adjusted value added

was exceeded by Kcs 8.6 billion, and planned gross production volume by Kcs 9.1 billion, which is equal to 3.5 days of production. Although the overall plan for adjusted value added was overfulfilled, along with that for gross production, these targets were not met in the same way or evenly by all enterprises. Production shortages in enterprises that did not fulfill the plan was equivalent to Kcs 1.7 billion.

In line with the objectives of the Seventh 5-Year Plan structural changes continued in industrial production. Production increased most rapidly in branches and divisions of the processing industry involved in the greater utilization of R&D and in divisions working on using domestic raw materials. Above average production increases have been achieved mainly in the electrotechnical industry, general engineering, the cellulose and paper industry, the glass, porcelain and ceramics industry, and in health care product production.

Total sales volume for centrally planned industry in wholesale prices increased by 4.1 percent from 1983. Deliveries of machinery and equipment for capital uses increased by 6.2 percent and deliveries of the same items for the domestic market increased by 3.1 percent in retail prices. Deliveries for export to socialist countries increased by 4.5 percent, and for export to nonsocialist countries by 6.9 percent.

State plan targets for all major sales areas were exceeded. Priority tasks of individual sectors were also fulfilled as deliveries of goods for the domestic market. There were difficulties in meeting targets for the product mix of the above deliveries.

Shortcomings persisted in the smoothness of supplier-consumer relations, caused in part by uneven fulfillment of planned production tasks by some industrial enterprises, along with continuing slowness in adapting the structure of production to economic requirements.

Return on investment and return on capital assets were higher than projected by the annual plan. Increased profit growth contributed significantly to this. Costs as a percentage of output decreased by 0.5 percent from 1983 (the annual plan projected 0.4 percent). In particular, material costs including nonmaterial services exclusive of depreciation declined by 0.9 percent (the projection was for 0.5 percent). Despite these positive results production consumption increased faster than projected by the plan. Inventory turnover period shortened by 2 days which freed up about Kcs 4 billion of frozen assets. Accumulated inventories, both in the form of semi-finished and finished goods, are still not being freed up fast enough, however.

Employment in centrally planned industry increased by 16,000 individuals from 1983, an increase of 0.6 percent, to a total of 2.698 million individuals. The average monthly wage of workers in centrally planned industry increased to Kcs 3,055, an increase of 2.2 percent from the previous year. Labor productivity increased by 5.3 percent in terms

of the amount of adjusted value added, and by 3.3 percent in terms of gross production. Worker overtime declined from 5.2 percent to 5.1 percent. After five years of gradual increase the shift work coefficient remained constant in 1984. The shift work coefficient for workers at machine work stations increased moderately, however.

In individual industrial sectors the following performance was recorded in 1984:

--in the fuel industry a total of 129.3 million tons of coal and lignite were mined, exceeding the state extraction plan by 4.2 million tons or 3.4 percent. The annual extraction plan was exceeded at all mining areas, in particular at the Northernmost Bohemian Lignite Mines by 3.3 million tons (4.7 percent), the Sokolov Lignite Mines and Briquette Plants by 0.7 million tons (3.3 percent), the Prievidza ULB by 70,000 tons (0.9 percent), the Ostrava Ostrava-Karvin Mines by 135,000 tons (0.6 percent), and the Kladno Mines by 26,000 tons (0.8 percent). Coal and lignite extraction increased by 1.9 million tons from 1983, an increase of 1.5 percent.

The planned volume of overburden removal for brown coal mining was exceeded by 29 million cubic meters, or by 13.2 percent. In comparison with the previous year 8.3 percent more earth was removed. The increased rate of overburden removal increased the mineable stock of coal.

Exceeding the planned tasks for coal extraction along with increased efficiency in consumption contributed to the smooth supplying of the national economy and the general public with solid fuels in 1984 and created favorable conditions for the first months of the new year.

#### Output of Important Industrial Products

<u>Product</u>	<u>standard unit</u>	<u>1984 output</u>	<u>1984/83 (percent)</u>
Black coal (saleable basin output)	thousand tons	26,421	98.2 <sup>2</sup>
black coal coke	" "	10,302	99.6 <sup>2</sup>
Brown coal (saleable basin output)	" "	102,857	102.4
including lignite	" "	78,349	102.7
Electricity	million kilo- watt hours	9,561	101.0
Pig iron	thousand tons	14,831	98.7 <sup>2</sup>
Crude steel	" "	10,909	101.6
Rolled material	" "	10,530	100.3
Cement	" "	3,117	100.6
Lime	" "	576	97.5 <sup>2</sup>
Nitrogen fertilizers	thousand tons nitrogen	344	105.4
Phosphorus fertilizers	thousand tons phosphorus pentoxide	1,039	103.7
Plastics	thousand tons	189	101.7
Chemical fibers	" "		

(Chart continued on following page)

<u>Product</u>	<u>standard unit</u>	<u>1984 output</u>	<u>1984/83 (percent)</u>
Saponin detergents	tons	76,772	103.5
Passenger and delivery vehicles	units	180,150	101.5
2-wheel motorized vehicles	"	202,724	99.3
Bicycles <sup>1</sup>	"	684,399	110.3
Trucks	"	46,872	108.5
Integrated monolithic circuits	billion Kcs	2.082	130.3
Digital computers	units	1.080	177.0
Metalworking machines <sup>1</sup>	billion Kcs	4.101	103.0
Metal forming machines	billion Kcs	1.557	102.9
Agricultural machinery, equipment (Including spare parts)	" "	2.980	106.3
Wheeled and tracked tractors	units	34,160	100.0
Household washing machines	thousand units	423	105.9
Household refrigerators and freezers	" "	446	111.0
of which: freezers	" "	156	149.4
Televisions	" "	394	92.3 <sup>2</sup>
of which: color televisions	" "	142	176.1
Furniture from wood and other materials	billion Kcs	7.621	102.4
Paper and cardboard	thousand tons	939	100.5
Glass: flat, drawn and clear	thousand square meters 4/4	32,151	89.5
Cotton fabric	million meters	598	102.2
Cotton underwear <sup>1</sup>	thousand units	55,982	102.9
Clothing from woven and nonwoven textiles <sup>1</sup>	" "	34,405	101.0
Hosiery production	million pairs	109.934	103.1
Footwear total <sup>1</sup>	" "	116.591	101.9
of which: leather	" "	53.131	101.2

1) excluding local production and service enterprises and production cooperatives

2) in line with the state plan

--Electricity generation reached 78.349 billion kilowatt hours, 2.7 percent higher than last year. The overall production plan was exceeded by 2.0 percent, and by 3.1 percent in stem power plants. In hydroelectric plants the plan was not fulfilled because of low water stocks. Electricity generated at nuclear power plants increased by 17.7 percent. Standard fuel consumption in steam power plants managed by the Federal Ministry of Fuel and Power declined by 0.3 percent.

Total domestic consumption of electricity increased in 1984 by 3.1 percent (against a projection in the state plan of 1.9 percent). Large consumers increased their use by 2.3 percent, small users by 6.8 percent. The general public increased its use by 6.9 percent. Both the national economy and the general public received smooth electricity supplies throughout the year. Significant possibilities remain for increasing the efficiency of fuel and electricity consumption.

--Overall production in the metallurgical industry, including ore extraction, increased by 1.8 percent. In ferrous metallurgy production increased by 2.1 percent, in nonferrous metallurgy by 0.6 percent, and in ore extraction and processing by 1.2 percent. Metallurgical production targets were overfulfilled even though the target for steel production was not met, mainly due to increased use of other metals and the rerolling of foreign steels. The percentage of less energy intensive production processes increased in the metallurgical sector, primarily the production of steel by the converter process (a 6.6 percent increase) and by continuous casting (an increase of 1.9 percent). The production of rolled stock from higher grade steels increased.

--In engineering there was an overall increase in production of 6.5 percent, which was 0.8 percent higher than projected by the plan.

The greatest rate of growth was in the electrotechnical industry, the production of which increased by 12.2 percent, while the state plan had projected an increase of 9.3 percent. The production of the component base for electrotechnics and electronics increased by 19.3 percent, the production of communications technology for capital use by 12.4 percent, and the production of data processing equipment by 23.8 percent. Production also increased rapidly of certain consumer electronics products, such as color televisions, the output of which increased from 81,000 units in 1983 to 142,000 units in 1984, a 76.1 percent increase. Production of radio-record player units increased by 25.3 percent, of record players by 7.6 percent, and of speciality lamps by 8.3 percent.

Production increased by 6.5 percent in the general engineering sector, which was 1.3 percent more than projected by the annual state plan. The major areas of production increases were: trucks, 8.5 percent; buses, 2.9 percent; agricultural machinery and equipment, 6.3 percent; earthmoving, roadbuilding and construction machinery, 7 percent. Production of spare parts for passenger cars increased by 1.7 percent, while passenger car production increased by 1.5 percent. In consumer goods the greatest increases were in the production of bicycles (10.3 percent, an increase of 63,700 units), and home washing machines (5.9 percent, 23,500 units). Freezer production reached 165,000 units, or 51,000 units more than in 1983. Bathtub production increased by 15 percent, gas and combination stove production by 23.3 percent, and utensil production by 7.0 percent.

Production in heavy engineering increased by 2.6 percent. This increase was due to increases in the production of trolleybuses (a 10.9 percent increase), equipment for the chemical industry (1.9 percent), motorized locomotives with more than 600 kilowatts of power (2.4 percent), elevators (8.9 percent) and diesel engines (8.0 percent). We did not succeed in fully converging demand for heat generation equipment deliveries.

--In the chemical industry overall production increased by 3.4 percent, while the state plan projected a production increase of 1.4 percent. This level of production was achieved with a 1.2 percent decline in the

amount of processed crude oil. The production of qualified chemicals increased more rapidly. Production of the chemistry and crude oil processing industry and of the rubber-asbestos industry increased by 3.4 percent. The most rapid growth rates were recorded in the production of phosphorus fertilizers (5.4 percent), potassium fertilizers (5.1 percent), chemical fibers (1.7 percent). The latter included increases in the production of technica; polyamide silk of 10.7 percent. Synthetic rubber production increased by 5.6 percent, truck covers 4.5 percent, passenger car covers by 2.9 percent, PVC floor covering by 2.9 percent. Pharmaceutical production increased by 8.7 percent.

--Production in the wood processing industry increased by 4.3 percent, a figure composed of increases of 3.6 percent in wood processing and 5.6 percent in the paper and cellulose industries. The annual state plan, on the other hand, had projected an overall production increase in the wood processing industry of 5.4 percent. The failure to fulfill planned objectives in this sector resulted from the failure to achieve design parameters in the operation of new facilities for this sector, as well as delays in opening such facilities (especially in the paper and cellulose industry).

--Production in light industry increased by 2.4 percent, which was 0.6 percent more than projected by the annual state plan. The greatest increases were recorded by the glass, porcelain and ceramics industry (a 3.8 percent increase), the printing industry (a 3.7 percent increase), and the clothing industry (a 3.0 percent increase). Lesser increases were recorded by the textile industry (1.8 percent) and the leatherworking and footwear industry (2.2 percent).

Total deliveries by light industry to the domestic market in wholesale prices remained at about the same level as last year. The structure of deliveries still does not correspond to the structure of demand, especially in footwear, knitted goods and, generally, in terms of product mix and fashionability.

--Production in the construction materials industry increased by 1.3 percent in 1984 exceeding planned targets. Cement production increased by 0.3 percent, and lime production by 0.6 percent. Particularly large production increases were recorded for fired coverings (8.8 percent), asbestos-cement sheets (10.6 percent), and ceramic tile (5.9 percent).

## Construction

Construction enterprises completed with their own work forces projects valued at Kcs 94.6 billion, fulfilling the state plan by 100.6 percent. This volume of construction work was higher than that of the previous year by 1.7 percent, and the achieved growth rate higher than projected in the state plan.

The planned volume of adjusted value added was exceeded by Kcs 460 million, or 1.2 percent. Better results than projected by the plan were also achieved with regard to the targets for the overall and material costs entailed in construction work.

Even though the overall targets for construction output were fulfilled, these tasks were not fulfilled in a balanced manner, and some enterprises did not fulfill their objectives. The plan for construction work performed with ones own work force was fulfilled mainly by enterprises under the Ministry of Construction in the CSR (overfulfilled the plan by Kcs 468 million), Roads in the CSR (overfulfilled by 231 million) and construction enterprises under the Federal Ministry of Fuel and Power (overfulfilled by Kcs 160 million). Okres construction enterprises in the SSR were the main ones that failed to fulfill their targets (by Kcs 105 million).

In areas where there is extensive construction, namely Prague, the North Bohemian Kraj, and in Bratislava, targets were fulfilled at a rate better than the national average.

The concentration of construction resources on critical projects was evident in higher rates of task fulfillment on projects established as priority tasks than on other projects.

The average number of employees at construction enterprises was 552,000. This is 1,000 more than last year (0.2 percent increase). The average monthly wage of a construction worker reached Kcs 3,134, which was 2.0 percent more than in 1983. Labor productivity in terms of adjusted value added increased by 2.7 percent, and in terms of construction work by 1.5 percent.

#### Agro-Food Complex

The total volume of gross agricultural production (in comparable 1980 prices) increased by 3.6 percent from 1983. Plant production was 4.2 percent higher than the previous year and livestock production 3.2 percent higher. The average annual volume of gross agricultural production for 1981-1984 was more than 8.5 percent higher than the average for the 1976-1980 period. For plant production the figure was 11.5 percent, and for livestock production 6.3 percent. Although the rate of increase in plant production was somewhat higher than that of livestock production, the projected spread between the two was not achieved.

#### Per Hectare Yields and Harvests of Selected Crops

<u>Crop</u>	per hectare yield		harvest in million	
	in tons		tons	
	1983	1984	1984 gross	1984/83
total grains (including grain corn)	4.38	4.74	12.0	108.8
oil plants	2.37	2.25	0.4	96.1
potatoes	16.57	19.30	3.7	117.6
sugar beets	29.08	36.21	7.6	126.0
corn as green matter and silage	30.75	32.06	16.2	108.8
perennial fodders on arable land	8.83	7.65	5.3	86.6
permanent meadows	4.46	4.60	3.5	103.2

In addition to record harvests of grain crops, harvests of sugar beets, potatoes and silage corn were higher than in 1983, while the harvest of perennial fodders on arable land and of oil plants were lower. Fruit and vegetable harvests fluctuated depending on the crop according to the prevalent weather conditions during ripening.

In livestock production planned objectives were achieved in terms of changes in its structure. In view of domestic fodder stocks, herds of swine and cattle were gradually reduced, to 6.743 million head of swine and 5.150 million head of cattle. This represented decreases in swine herds of 327.000 head and of 39,000 head of cattle. Average annual milk yield increased to 3,526 liters, an increase of 142 liters (4.2 percent) from 1983. Average egg yield reached 239.9 units (versus 229.7 units in 1983). The intensity of cattle and swine feeding increased, with weight gain of feedlot cattle reaching 0.71 kilograms (as opposed to 0.70 kilograms in 1983), and that of swine in feedlot and prefeedlot operations reaching 0.532 kilograms as opposed to 0.507 kilograms in 1983. At the same time consumption of concentration fodder per unit of production further declined, with the exception of cattle.

Targets for the procurement of plant products for state stocks were fulfilled by 100.1 percent, for rape seed by 102.9 percent, for sugar beets by 95.8 percent, and the timed plan for the procurement of marketable potatoes by 109.1 percent. The plan for the procurement of livestock production was significantly overfulfilled.

#### Procurement of Livestock Production

	standard unit	1984	<u>increase compared w/</u>	
			<u>plan</u>	<u>1983</u>
total slaughter animals (excluding poultry)	thousand tons live weight	1,592	66	98
of which:				
slaughter cattle	"	709	35	35
slaughter swine	"	843	23	53
Slaughter poultry	"	237	4	7
milk	million liters	5,936	218	486
eggs	million units	3,044	121	234

Small scale producers accounted for about 10 percent of total agricultural output of slaughter animals including poultry, 64 percent of the fruit and more than 38 percent of vegetable production.

The resources made available to agriculture contributed to the meeting of production targets. In 1984 the agricultural sector took delivery on 1.7492 billion tons of artificial fertilizers (in net nutrients), or 259.4 kilograms per hectare of agricultural land (in 1983 the figure was 263.1 kilogram per hectare of agricultural land).

The delivery of 9,182 tractors represented a 4.4 percent increase from 1983. Other implements delivered to agriculture included 3,028 tractor plows (27.1 percent more than in 1983), 1,685 harvest combines for grain (12.3 percent more than in 1983), 1,914 seeding machines (15.3 percent more) and 515 potato harvesters (31 percent more). Irrigation systems were constructed on 14,500 hectares (96.7 percent of the planned task, and drainage systems were installed on 47,000 hectares (114.6 percent of the plan projection. Total planned capital investments in agriculture were fulfilled by 106.7 percent.

Average monthly comparable compensation for JZD employees increased by an estimated 3 percent to Kcs 3,000. JZD labor productivity increased by about 6 percent on an output per worker basis. The average monthly wage of state farm workers amounted to Kcs 2,898 in 1984, an increase of 3.9 percent over 1983. Labor productivity increased by roughly 5 percent.

Food industry production increased by 3.2 percent over the previous year, or 2.2 percent more than projected in the satte plan. This favorable fulfillment level of planned tasks was influenced by higher than planned procurements of agricultural products. The greatest production increases were in the starch, liquer, and winemaking industry (10.4 percent), in the slaughter and meat products industry (4.5 percent) and in the silk industry (4.2 percent).

The production of butchered meat reached 945,000 tons, which was 4.2 percent more than the previous year. The production of preserved meat increased by 2.1 percent. Pasteurized milk production reached 2.092 billion liters, 4.3 percent more than the previous year. Butter production reached 152,000 tons (a 1.6 percent increase), cheese production 127,000 tons (a 3.0 percent increase). Beer production amounted to 2.377 billion liters, 4.8 percent less than in 1983, and the production of nonalcoholic drinks reached 788 million liters, 6.3 percent less than in 1983. The general public was smoothly supplied with food, but there was little innovation even though adequate raw materials were available, and the product mix was not expanded significantly.

#### Forest Management

The tasks in the annual plan were fulfilled. Overall timber extraction reached 19.1 million cubic meters, or 2.5 percent more than in 1983. Deliveries of useable timber reached 17.6 million cubic meters, an increase of 0.5 percent from 1983. In terms of the plan timber extraction was 2.5 percent higher than projected, and deliveries 0.7 percent higher. Reforestation was conducted on 54,100 hectares of land. 0.9 percent more than in 1983. The reforestation plan fulfilled by 106.0 percent.

The wind disasters that hit our territory in July and November of last year greatly complicated the situation in forest management, especially in some areas of the CSR. Timber from these disasters accounted for 54 percent of total timber extraction last year. Disposal operations related to these extensive disasters will continue.

To improve the status of forest stands protective and cultivating operations were conducted on 320,000 hectares of state forests and plot enhancement operations on 4,000 hectares.

#### Water Management

Deliveries of water to consumers through public water mains increased by 8 million cubic meters over 1983, reaching 1.263 billion cubic meters (a 0.6 percent increase). The percentage of the general public supplied by public water mains increased to 75.2 percent, and the percentage of the population living in houses hooked up to public sewerage systems reached 61.1 percent. Although overall deliveries of potable water reached planned levels, recent years of drought became evident in difficulties in some areas with potable water supplies. Seventy-five percent of all waste water underwent treatment in 1984 (as opposed to 73.6 percent in 1983).

#### Transportation and Communication

The transportation sector handled the transportation requirements of the economy, which declined in 1984. The transfer continued of shipments of goods from road to railway transport, which is less energy intensive. As a result, railway and water transport increased as a percentage of total transportation activities. Factory transportation remained at about the same level as last year, meaning that plan objectives in the reduction of factory transportation were not fulfilled.

Public freight transportation moved 660.4 million tons of goods, which is 0.4 percent less than last year. The state plan was fulfilled by 99.4 percent. The Czechoslovak State Railways [CSD] accounted for 45.3 percent of freight transport, Czechoslovak Automotive Transport [CSAD] 52.7 percent, and river transport 2 percent.

Railway transport accounted for 82.5 percent of public transport output in ton-kilometers, transporting 298.8 million tons of goods. Its transportation volume increased by 2.3 percent over the previous year. Railway loadings reached 251.6 million tons. 1.5 percent more than in 1983. Average freight car turnaround time was reduced by 2 percent, and the productivity of operating locomotives increased by 1.2 percent. The motorized locomotive operations of railway transportation consumed 421,000 tons of diesel fuel. 1.3 percent less than in 1983. Electric locomotives accounted for 4.5 percent more transportation than in 1983.

Czechoslovak Automotive Transport [CSAD] carried 348.2 million tons of goods over the roads, 2.9 percent less than last year, fulfilling the state plan by 98.1 percent. Contractual obligations, however, were met. The CSAD fleet consumed 641,200 tons of propellants, which represents a decline of 0.1 percent in comparison with 1983, while ton-kilometer performance improved by 0.6 percent and passenger kilometers by 2.8 percent.

In 1984 22.4 kilometers of new superhighway were constructed in the CSSR. At present 450 kilometers of superhighway are operational.

River transport increased by 12.7 percent, transporting 13.4 million tons of goods. The transportation of energy coal to Chavaletice accounted for 32.7 percent of total river transport.

Public passenger transportation carried 2.6884 billion persons, an increase of 2.1 percent in passenger traffic. The number of passengers transported by CSAD increased by 42.1 million, and the number transported by the railways by 13.1 million. There is a persistent problem with travel comfort in passenger transport and of adherence to schedules in railway transport.

The Prague metro transported a total of 272.9 million persons, an increase of 1.1 percent over last year. The metro carries an average of 745,600 passengers daily.

In communications the modernization of radiocommunications continued, as well as the automation of intercity and international telephone communication. An additional 94,900 telephone stations were added this year. In certain places, mainly in large cities, a portion of the applicants remain unsatisfied. As of 31 December 1984 3.5 million stations were operational, 1.2 million of which were residential. This represents a density of 22.6 telephone stations per 100 citizens. Automatically handled intercity calls account for 84.1 percent of all such calls, and 92.6 percent of all international calls are handled automatically.

In the area of radiocommunications the radio transmitter at the Moravske Budejovice RKS and 2 basic transmitters for the channel II television program at Rychnovnad Kneznou and at Stara Lubovna were made operational. The territory of the CSSR currently has 71 percent coverage with the channel II programs, as opposed to 68.5 percent in 1983.

In 1984 1.3952 billion letters and 26.7 million packages were handled. The postal newspaper service distributed 1.2283 billion newspapers and periodicals.

#### Foreign Trade

Planned objectives in foreign trade were fulfilled. Moreover, foreign trade turnover was higher than projected by the state plan. Above all, goods exchanges with socialist countries were higher than planned, and both import and export targets exceeded. Exports increased at a faster rate than planned with nonsocialist countries, but structural targets were not met. The fulfillment of planned import targets assured that the essential needs of our economy would be met at the same time that hard currency resources would be efficiently allocated. The adaptation of production and the organization of foreign trade operations to changing foreign market conditions continues to be slow, which has a negative impact on the efficiency of foreign commercial exchanges.

## Development of Foreign Trade Turnover<sup>1</sup>

<u>Exports</u>	1984 as percent of 1983	<u>Imports</u>	1984 as percent of 1983
Total exports	110.0	Total imports	110.4
composed of:		composed of:	
exports to socialist countries	112.1	imports from socialist countries	112.4
exports to nonsocialist countries	103.9	imports from nonsocialist countries	103.0

1) in current prices, all charges paid to border of delivering country

Goods exchanges with CEMA member countries increased in 1984 in comparison with 1983 by 12.7 percent, and with the Soviet Union by 13 percent. Trade with socialist countries accounted for 78.3 percent of all foreign trade turnover.

Foreign trade and economic cooperation with the Soviet Union occupies an important place in our foreign trade operations. It provides the conditions for the growth of the Czechoslovak economy. The USSR accounts for 45.1 percent of our foreign trade turnover.

The ongoing implementation of the Comprehensive Program of Socialist Economic Integration is having a positive impact on the development of trade with socialist countries. Czechoslovakia has become more integrated into specialization and production cooperation, especially in the area of machine building and the electrotechnical industry, where cooperation continues to expand in particular with the Soviet Union. Exports based on specialization and production cooperation agreements account for 28 percent of our total exports to the CEMA countries, according to preliminary data, and for 46 percent of our machinery exports. This type of export accounts for 33 percent of total exports to the USSR and 50 percent of our machinery exports there.

### Standard of Living

The performance of our national economy made it possible to maintain and further increase the quality of our standard of living and to strengthen the social certainties of our population.

In 1984 our economy developed under conditions of full employment. The average number of workers increased from 1983 by 0.7 percent to 7.515 million people. The production sphere accounted for 61 percent of this increase (30,000 workers) and the nonproduction sphere for 39 percent (19,000 workers). Employment in the education and public health areas increased faster than projected by the plan.

Overall nominal money incomes of the population increased by 2.6 percent over last year (the plan projected a 1.8 percent increase), and reached Kcs 403.7 billion. Real incomes in 1984 increased by 1.6 percent. The average nominal monthly wage for an employee in the socialist sector of the economy (excluding JZD) increased by 1.7 percent over the previous year, to Kcs 2,836. Real wages for an employee of the socialist sector of the economy (excluding JZD) increased by 0.8 percent over 1983.

In accordance with the plan, monetary expenditures by the general public increased faster than incomes. Specifically, they increased by 2.8 percent to Kcs 388 billion. Passbook savings and cash amounted to Kcs 15.7 billion, or 3.9 percent of monetary incomes. Savings in state savings institutions increased by 6.8 percent, i.e. by Kcs 13.1 billion. The amount of long term savings increased in particular.

Retail trade turnover in all commercial systems increased, according to estimates, by 3.1 percent in current prices, and specifically by 2.8 percent for food items and 3.3 percent for durable goods. This was a faster increase than projected by the state plan.

In the food area, sales of meat and meat products increased in comparison with 1983. This was also the case with cheese and subtropical fruits, while other food items maintained the level of sales of the previous year. There were local shortcomings in the supply of particular food items.

Increases in production and imports were reflected in high growth rates in the sales of certain types of durable goods. Sales of passenger cars reached 108,000 units or 15 percent higher than in 1983, while 580,000 bicycles were sold, an 8 percent increase. Deliveries from production of color televisions amounted to 127,000 units, 86 percent more than in 1983, and production deliveries of freezers reached 124,000 units, a 74 percent increase. We were not successful in eliminating certain product mix shortcomings in the supply of textile goods, clothing, shoes and certain types of homemaking items.

Local production and service enterprises and production cooperatives provided an increased range of services for the population. Rates for services paid for by the general public increased by 1.8 percent from 1983. The greatest increases were in the rates for services related to gardening, the repair and maintenance of tires, the repair of appliances including refrigerators and freezers, and for certain community services. Despite favorable results in the amount of services provided there is still underutilized capacity at local production and service enterprises and production cooperatives in terms of the quality of work, response time and in the comprehensiveness of services for the general population.

The aggregate index of retail prices of goods and services increased by 0.9 percent from the previous year. This price index was influenced mainly by price adjustments made as of 15 October 1984.

The cost of living index for households increased by 1 percent, that for households of blue collar workers and employees by 0.9 percent, that for cooperative farmers by 1.1 percent and that of retirees by 1.1 percent.

A rapidly increasing component of the cost of living has been public consumption for the population which increased by 5 percent from 1983 and amounted to Kcs 166.4 billion. Public consumption per capita amounted to Kcs 10,764, or Kcs 483 more than in 1983. The largest increases were in expenditures for social security, health care and education.

In 1984/1985 700,000 children had been placed in kindergartens, which is 94.3 percent of this age group. There are 405,000 students in instructional programs; in 1984 132,000 students were accepted into such programs, 14,000 of which were accepted into instructional programs with a diploma. Daytime programs at gymnasiums, secondary professional and professional schools involve 355,000 students, and there are 141,000 students in colleges who are Czechoslovak citizens.

In the health care system the bed capacity has increased by 0.5 percent to a total of 193,600 beds, 122,000 of which are in hospitals. The number of people per doctor declined by 6 from 1983 to 281 individuals in 1984. Day care facilities for children had available 122,300 places at the end of 1984, 27.1 percent of which were available at factory and cooperative day care facilities. The number of places in public care facilities increased by more than 2,000.

Aggregate social security payments (retirement insurance payments and monetary and material payments of medical insurance) increased by 2.6 percent to Kcs 79.9 billion. Payments of retirement insurance amounted to Kcs 50.7 billion, or 3.3 percent more than in 1983. The increase in payments of retirement insurance were influenced both by increased retirement benefits and an increase in the number of retirees. By the end of 1984 3.973 million pensions were being paid; 2.191 million of which were old age pensions. Supplemental payments for children amounted to Kcs 15.5 billion, expenditures for medical leave were Kcs 8 billion and other medical insurance payments Kcs 5.7 billion. Total monetary assistance to families with children amounted to Kcs 22 billion.

In housing construction 90,900 apartments were completed, which was 4,800 fewer than last year, though the plan was still fulfilled by 100.6 percent. Of the total number of new apartments 15,800 were in communal construction, 43,500 were cooperative apartments, 2,600 were enterprise apartments, and 29,000 were in individual construction. Planned targets for the construction of new apartments were fulfilled. In some krajs, such as Prague, a lack of balance was evident in the completion of apartments under socialist ownership were modernized and rebuilt. The plan here was not fulfilled.

Citizen initiatives under Project Z contributed to improvements in both the public facilities and public utilities available in a number of cities and towns. Work valued at Kcs 4.3 billion has been performed.

These projects have resulted in the creation of 842 places in day care facilities, 10,101 kindergarten places, 3,081 places for elementary school students, 23 social security facilities and 271 sales outlets and service operations.

In the area of concern for the environment 1984 saw the implementation of planned measures to enhance and preserve it. A total of 55 construction projects were completed (with over Kcs 2 million of costs) with budgeted costs of Kcs 1.5792 billion. Gasification is proceeding according to plan.

A total of 23 projects were completed related to air quality, with budgeted costs of Kcs 601.9 million. In 1984 an important project in terms of air quality was begun, namely the desulfurization of one of the units at the Tusimice power plant.

The protection and improvement of water quality was the object of 24 projects with budgeted costs of Kcs 715.3 million. Water treatment plants were put into operation, for instances, in Karvina, Lokti nad Ohri, Zilina, at the Bratislava Slovnaft national enterprise and at the Sala Duslo national enterprise. Waste water treatment plants at Cizkovice and at Kranova were expanded.

Operations began at incinerators for wastes in Brno and Kosice. A total of 8 projects have been completed related to solid waste disposal, at a budgeted cost of Kcs 262 million.

At the end of 1984 173 construction projects were incomplete, with budgeted costs of Kcs 11 billion, and designated for environmental improvement. These projects will all be completed in upcoming years.

The number of inhabitants of the CSSR reached 15.481 million by the end of 1984. During the year there were 228,000 live births and 182,000 deaths, 120,000 marriages and 38,000 divorces.

9276

CSO: 2400/486

CZECHOSLOVAKIA

CEMA COOPERATION PROBLEMS DISCUSSED

AU211359 Prague NOVA MYSL in Czech and Slovak No 6, 1985 signed to press  
6 May 1985, pp 88-98

[Article by Engineer Otta Henys, Office of the CSSR Government Presidium,  
and Engineer Vladislav Cihlar, Office of the CSSR Government Presidium:  
"For a Further Deepening of Czechoslovakia's Participation in Socialist  
Economic Integration;" article is written in Czech]

[Excerpts] [passage omitted on the conclusions of the CEMA summit of June 1984 and the growth of trade exchange among CEMA member since 1970] If we assess the level of involvement of the economies of CEMA member-state in the international division of labor from the viewpoint of the exacting requirements of the present and the future, particularly from the viewpoint of the economies' rapid transition to intensive development as laid down by the economic summit [In Moscow in June 1985--FBIS], we will come to the conclusion that the current pace and the attained level of integration of the economies of CEMA member-states still cannot be regarded as satisfactory. This is also shown by international comparisons. For example, although the community of CEMA states accounts for roughly one-quarter of the sum or worldwide national incomes (and for about one-third of worldwide industrial production), its share in world trade has been less than 10 percent in recent years. Comparing per-capital foreign trade turnover with that of the most advanced capitalist states will show the same thing. So far, with respect to this indicator none of the CEMA member-states has reached the level of capitalist states with similar economic dimensions.

The integration of the Czechoslovak economy in the international socialist division of labor and also the level of Czechoslovakia's economic relations with CEMA member-states cannot be regarded as wholly satisfactory--in spite of undisputed positive results--given the possibilities and applying the exacting criteria of future development. Although trade exchange with CEMA member-states in current prices is marked by great dynamism, after eliminating price influences we find that the growth rate is slowing down. In relations with some CEMA member-states it has even been possible to detect signs of stagnation in recent years. It is apparent that both the CSSR and the other CEMA member-state have great untapped potential in making use of their economies' participation in the international division

of labor to speed up the process of their intensification. [passage omitted on the emphasis placed by the CEMA summit on the coordination of national economic plans and on Czechoslovakia's coordination agreements with CEMA partners concluded thus far]

The fulfillment and execution of the coordination of economic and scientific-technical policies is and will continue to be fraught with a number of problems. One of them is the problem of solving value relations [hodnotové vzťahy]. The coordination of 5-year plans and the implementation of long-term target programs of cooperation thus far show that serious problems arise due to the incomplete or belated solution of value relations. Today, as we are about to extend the horizons of cooperation, as we strive to substantially raise the effectiveness of mutual economic relations and as the spheres of research, development, and production are becoming the focal point of cooperation, the problem of the expression of value reaches newer and more complicated planes than hitherto. Ties between the external and internal price circuits, questions of exchange rates, and the application of internal prices and rates in mutual clearing operations are appearing in a new context, to say nothing of the application of khozraschet [management and cost-accounting method based on financial autonomy and economic accountability--FBIs] in international economic associations and joint enterprises. In retrospect, these problems may change the views of some partners on the effectiveness of individual cooperation projects and may thus even account for a certain reluctance to look for new ways to jointly solve the problems of the development of the economies of the states of our community. [passage omitted on the CSSR's endeavor to comply with the demand of the CEMA summit to bring the economic mechanisms of CEMA countries closer together and to improve the "mechanism" of CEMA integration; on the important role of specialization and production sharing in CEMA development plans as outlined by the CEMA summit; and on progress in recent years in concluding specialization and production sharing agreements with CEMA partners]

The path embarked upon in specialization and production sharing has not completely eliminated the shortcomings and problems existing in this area. In many cases the degree of concentration of specialized production is still low and there are instances of unfounded parallel production. Production capacities are far from being adequate in size and in many cases specialized production fails to fully cover the needs of CEMA member-states, especially as regards advanced new machinery and equipment. There are still cases where cooperation between states in this sector does not comprise the entire research-development-production-use cycle. The progress recorded in developing specialization in parts and components is still relatively small, the specialized products do not always come up to the required technological and economic parameters. And finally, also the incentives for the developments of international specialization and production sharing among CEMA member-states continue to be inadequate; the national economic mechanisms are hardly effective.

The reason must be sought, above all, in the fact that the systems of planned national economic management in individual CEMA member-countries do not yet

comprehensively exert sufficient economic pressure on the economic subjects that would compel them to develop relations of specialization and production sharing. A certain role is played by other factors as well, for example by the fear that the structure of imports might deteriorate as a consequence of higher imports of machinery and equipment, by the introduction of one's own production due to the shortage of some types of machinery or inadequate technological standards of imported machinery or by the relatively high prices of some imported types of machinery and equipment compared with internal prices. That is why the CEMA economic summit set concrete tasks for this area. All existing agreements and contracts on international specialization and production sharing for the years 1986-90 or for a longer period are currently being modified and amended from the viewpoint of these tasks. [passage omitted on long-term specialization and production sharing agreements currently under preparation in CEMA]

In the CSSR, too, it will be necessary to reexamine, at all levels of management, existing approaches to international specialization and production sharing and to look for comprehensive solutions to problems that crop up. [passage omitted on need for a system of management that would promote CEMA integration and on the continued relevance of the conclusions of last year's CEMA summit]

CSO: 2400/498

CZECHOSLOVAKIA

EMPLOYMENT OF WOMEN IN CSSR ANALYZED

Prague STATISTIKA in Czech No 2, 1985 pp 72-78

[Article by Dyna Tesarova]

[Text] Since 1983 women have been a significant and indispensable factor of development of CSSR society. They make up more than half of the total population, as of 31 December 1983 they numbered 7.9 million.

Spurred by the dynamic development of our socialist society, conditions conducive to an all-around realization of political, economic and cultural rights and social certainties of working women continue to develop. An indication of the equalization of a woman's status with that of a man as a full member of socialist society is the sharp increase in women's employment. Constantly expanding job opportunities made it possible not only to incorporate women into the working process to the fullest extent possible, but also to improve their education and their qualification for performing more complicated and socially more important work.

In the years 1949-1983 the number of working women in the CSSR national economy grew by almost 1.4 million, i.e. roughly by two-thirds of what their number was in 1948. For comparison, during the same period the number of working men grew by 619,000, i.e. 17.9 percent. The growing need for workers in almost all branches of the national economy was covered, apart from the increase in population, also by the recruitment of new workers, mostly housewives. Since 1948 women have contributed almost 70 percent to the total increase in the number of workers in the Czechoslovak economy. Incidental to that, the proportion of women integrated into the work process has increased, both as concerns the total number of people working in the CSSR economy as well as the total number of women in Czechoslovakia.

Although since 1970 the absolute number of women working in the CSSR national economy continued to rise, the proportion of women in the total number of working people and the number of women has been practically stagnant. The development in women's employment at the beginning of the 1970's has been strongly influenced by the growing number of women temporarily exempt from the work process because of motherhood. As a consequence of pro-population growth measures adopted in 1971-1973--for example adjustment of maternity benefits, length of paid and unpaid maternity leave, introduction of maternity allowances, etc.--the number of women on maternity and extended maternity leave--i.e.

principally up to 26 weeks--has been developing, up to the mid seventies, roughly in conformity to the declining number of live births. At the end of 1976 there were 134,000 women on maternity leave, at the end of 1983 only 101,000 women. The decline in the number of women on extended maternity leave--basically til the child is two--began to occur only after 1980. That the earlier adopted pro-population measures were being used to full advantage is evidenced also by the fact that the proportion of women who are on extended maternity leave in the total number of women on maternity leave and extended maternity leave continues to rise, and today accounts for more than 70 percent. Socialist society is thus solving sensitively and responsibly the other--no less important--task of a woman, namely motherhood. Particulars of the scope of women's activities other than work concerned with caring for family and children were given by the results of the population census of November 1, 1980: roughly 60 percent of all women who are part of the work force were caring for family and children. As of 1 November 1980 230 of each 1,000 economically active women were caring for 1 child, 280 for 2 children, 74 women were taking care of 3 children, 13 for 4 children, and 4 women for 5 or more children.

The overall increase in the employment of women in 1949-1983 was accompanied by basic changes in the branch structure of their displacement. During this time the number of women rose in all the branches, with the exception of agriculture, where--together with the decline in the total number of workers by almost 60 percent--there were almost 770,000 fewer women. While in 1948 women accounted for more than half of the personnel in 5 branches out of a total of 30, at the present time women are a majority in almost all the branches. A significant rise occurred particularly in the number of women working in the non-manufacturing sector, where only in personal transportation, in sciences, research and development, in the housing sector and in social organizations, are there more men working than women. The growing employment of women during the whole period of socialist build-up had a positive effect also on the redistribution of workers, because it freed men for work in branches physically more demanding. The survey shows that at present there is no area of the national economy where women are not working (see Table 2).

A significant change occurred also in the structure of working women according to their position in the work force, this being true of women employees--i.e. women who receive wages or salaries from the wages paid by enterprises or organizations--as well as members of cooperatives. The number of women in private housekeeping today is roughly 1 percent of their number in 1955.

The degree to which women are integrated into the work force continues to vary in individual areas. At the end of 1983 the proportion of women in the total number of working people in SSR was 1.0 point lower than in CSR and amounted to 41 percent. In retrospect, however, data shows that the representation of women in the total number of people working in the SSR national economy was higher than in CSR up to the year 1954, the reason being the higher number of women active in agriculture, particularly in the private sector. While in CSR the majority of women active in agriculture in the first half of the 50s found employment in other branches in later years, mostly in manufacturing, in SSR those women mostly stayed outside the work force (see Table 4).

The integration of women into the work force has been and still is being hampered by the uneven regional distribution and variable structure of work opportunities in some areas. Women prefer to work in the area where they live or in the immediate neighborhood, and long-distance commuting to work is an exception in their case. At the present time, the greatest proportion of women in the total number of working people is in the East Bohemia region, where the high employment of women is facilitated by the textile industry, which provides ample working opportunities for women. On the other hand, the lowest rate of employment for women--other than in the Slovak regions, with the exception of the capital of Bratislava--is in the Central Bohemia and North Moravia regions, where industries oriented toward male workers predominate.

The considerable expansion of manufacturing and services since 1948 required a high rate of employment not only of men but also of women. The fact that women today make up 45.8 percent of the total number of workers is due to the increased level of their education. As a consequence of the gradual disappearance of differences between the professional qualifications of men and women, inherited from the time of a capitalist development of the republic, women, because of their increasing qualifications, are being assured of ever greater economic equality.

Since 1958, when the number of women with a high school and college education working in the socialist sector of the national economy (excluding unified agricultural cooperatives) was first being monitored, their proportion in the number of workers with such levels of education rose from 37.8 percent to 54.3 percent in 1983. The fastest growth was registered in the number of women with higher levels of education, i.e. college and complete high school education in professional high schools. There was a highly dynamic growth in the number of women with college and professional high school education, especially in SSR. The proportion of women in the total number of workers with these levels of education is currently higher in SSR than it is in CSR.

The specialization of women is oriented in quite different ways than that of men. While men with college or professional high school education are concentrating on fields with a technological orientation, women on the other hand are mostly concentrating on non-technological areas. Of the total number of 1.115 million women with college or professional high school education, most of them are in the field of economics, health care and teaching.

Women born after the second World War amount to more than 40 percent of the total number of working women at the present time. These women have been brought up already in a society which was building socialism, which allows women an equal access to education as it does to men. The level of education of women in the younger age groups is therefore considerably higher than that of women of more advanced age. This has been documented also by a review of the results of a census concerned with the qualification structure of economically active women done on 1 November 1980 (see Table 7).

If we compare the utilization of the skills of workers with college or high school education according to sex, we find that women, much more than men, are working in jobs commensurate with the level of their education.

The not always consistent utilization of workers' qualifications characterized by the level of achieved education contrasts with the so far somewhat low fulfillment of qualification requirements prescribed for performing a given function. In 1983 jobs requiring college education were performed by women in 34.9 percent of the cases, in jobs requiring high school education the percentage was 64.3. In 1970 the figures were 29.3 percent and 49.4 percent. At the same time, many more women are fulfilling the prescribed requirements for education than men, and to a lesser degree than men are performing functions which require higher levels of education than the ones they have achieved. This fact is shown in Table 9, which is concerned with the qualification structure of our professional workers (class 6-9 JKZ) in the socialist sector of the national economy, excluding unified agricultural cooperatives.

The intensity of women's employment and the level of their education in CSSR, which is one of the highest in the world, is without doubt the result of the gradually increasing socio-economic equality of women. CSSR also ranks as one of the best as far as mother, child and family care is concerned.

Table 1

Employment of Women in the CSSR National Economy during 1949-1983

Year	Working Women in the national economy per thousand of persons	Number of working women per 1,000		Other women on maternity leave and extended maternity leave per 1,000 persons
		total working	women	
1948	2,055	374	324	22
1950	2,103	380	328	24
1955	2,515	423	373	27
1960	2,560	424	364	35
1965	2,820	440	388	90
1970	3,122	455	424	164
1975	3,196	454	420	366
1980	3,349	454	427	371
1983	3,432	458	433	340

Table 2

Employment of Women in the National Economy According to Branches (at the end of the year)

Branch of the national economy	1948		1960		1970		1980		1983	
	per 1,000 people	in %	per 1,000 people	in %	per 1,000 people	in %	per 1,000 people	in %	per 1,000 people	in %
Total working women	2,055	37.4	2,560	42.4	3,122	45.5	3,349	45.4	3,432	45.8
in branches:										
Material output	1,811	37.5	2,059	40.7	2,321	42.9	2,320	41.3	2,347	41.4
Non-manufacturing	244	36.3	501	50.9	801	55.2	1,029	58.5	1,085	59.7
Out of total amount										
--agriculture	1,164	52.1	730	52.5	575	49.7	409	43.6	390	41.9
--manufacturing	443	27.2	860	37.2	1,111	42.3	1,138	40.8	1,149	40.5
--construction	10	4.2	45	10.0	68	12.3	87	13.7	86	13.8
--transportation	18	8.0	50	16.7	78	21.2	84	21.9	86	22.5
--communications	6	11.1	37	50.2	61	62.5	68	64.5	72	65.1
--domestic trade	127	36.3	274	68.4	369	73.7	474	74.0	502	75.0
--sciences, research, development	3	19.4	29	29.9	54	33.4	62	36.6	63	37.0
--education	58	54.6	143	63.6	224	68.4	291	72.0	309	72.9
--culture	8	33.8	23	44.4	37	47.1	59	51.1	63	51.9
--health care	48	60.3	115	72.9	180	78.6	235	78.5	252	78.9
--social welfare	4	62.9	10	76.4	21	80.0	35	86.7	39	87.1
--management, Judiciary, prosecution, and arbitration	41	32.7	40	42.9	55	51.3	66	57.3	71	59.7

Table 3

Changes in the Number of Working Women According to their Position in the Work Force between 1955-1983  
(at the end of the year)

	Per 1,000 people		Percentage of the total number of working people		Structure in percent	
	1955	1983	1955	1983	1955	1983
Total working women	2,515	3,432	42.3	45.8	100.0	100.0
Of that:						
Employees	1,506	3,053	36.2	45.7	59.9	89.0
Members of cooperatives	201	369	48.7	46.2	8.0	10.7
Of that in unified agricultural cooperatives	158	270	49.5	43.4	6.3	7.9
Individual housekeeping	808	10	59.0	53.9	32.1	0.3
Of that in agriculture	800	6	60.7	67.2	31.8	0.2

Table 4

Employment of Women in CSR and SSR in 1949-1983 (per 1,000 people)

Year (as of Dec 31)	CSR		In Branches		SSR	
	Total Absolute	1) in %	Material production	Non- manufacturing	Total Absolute	In Branches Non- Material production manufacturing
1948	1,454	36.5	1,253	201	601	558 43
1950	1,485	37.0	1,264	221	618	564 54
1955	1,820	42.3	1,509	311	695	605 90
1960	1,960	43.7	1,575	385	600	484 116
1965	2,143	45.5	1,634	509	677	512 165
1970	2,281	46.5	1,697	584	841	624 269
1975	2,272	46.0	1,640	632	924	655 269
1980	2,335	45.8	1,621	714	1,014	699 315
1983	2,376	46.1	1,629	747	1,056	718 338

Table 5

Development of Women's Employment in the National Economy According to Regions (as of the end of the year)

Territory, Region <sup>1)</sup>	1962		1980		1983	
	per 1,000 people	in % <sup>2)</sup>	per 1,000 people	in % <sup>2)</sup>	per 1,000 people	in % <sup>2)</sup>
CSSR	2,688	43.3	3,349	45.4	3,432	45.8
Capital city Prague	249	46.2	319	46.5	327	47.1
Central Bohemia region	247	44.7	236	44.9	238	45.3
South Bohemia region	146	46.9	151	46.3	155	46.6
West Bohemia region	175	44.1	198	46.2	200	46.4
North Bohemia region	243	45.1	272	45.6	277	47.2
East Bohemia region	282	47.4	254	46.9	300	47.2
South Moravia region	389	45.1	450	46.4	456	46.5
North Moravia region	328	40.6	415	44.2	423	44.5
SSR capital city Bratislava			123	46.0	130	47.0
West Slovakia region	242	37.6	306	44.4	316	44.6
Central Slovakia region	222	41.5	315	44.7	326	45.0
East Slovakia region	165	39.1	270	44.2	284	44.9

1) In regional structure for the appropriate year (year 1982 construed according to author)

2) of the total number of working people of the appropriate area

Table 6

Number of Women with Higher Education in the Socialist Sector of the National Economy (excluding unified agricultural cooperatives)

Indicator	Total	College	Educational Level	
			Completed high school in SOS and conservatory	High school without baccalaureat
1958 per 1,000 people	283	28	125	110
Percentage <sup>1)</sup>	37.8	20.5	42.5	41.6
1978 per 1,000 people	923	160	569	194
Percentage <sup>1)</sup>	52.4	38.0	55.9	60.3
1983 per 1,000 people	1,115	215	726	174
Percentage <sup>1)</sup>	54.3	39.7	58.9	61.9
Index 1983/1958	424.1	762.8	581.2	158.8
1983/1978	120.9	134.1	127.7	90.0
In 1983				
--in CSR in thousand people	759	132	482	145
in percent <sup>1)</sup>	53.6	37.8	57.5	63.3
in SSR in thousand people	356	83	244	29
in percent <sup>1)</sup>	55.9	43.3	61.9	56.1

1) of the total number of working people of appropriate level of education

Table 7

## Qualification Structure of Economically Active Women as of 1 November 1980

Share Within Educational Level According to Age Group per 1,000 Women

Age group	V	USO	USV	S	U	Z
Economically active women						
Total	52	191	45	78	202	432
Within that by age group						
15-19 years	--	135	24	67	456	318
20-29 years	66	277	61	43	293	260
30-39 years	78	248	62	52	223	337
40-49 years	40	158	31	104	129	538
50-59 years	26	71	24	134	109	636
60 and more years	16	45	19	93	67	760
Plus women on maternity and extended maternity leave	55	242	54	46	330	273

Table 8

## Utilization of Qualification of Men and Women as of 31 October 1983

Number of workers of a given level of education, Working in Jobs Requiring Certain Level of Education (percentage)

## Attained level of education

	Higher		Commensurate		Lower	
	Men	Women	Men	Women	Men	Women
College (V)	--	--	89.7	89.4	10.3	10.6
Completed high school in professional high school and conservatory incl. higher (USO)	25.7	8.1	50.5	77.5	23.8	14.4
High school (without graduation)--S	50.4	53.3	16.8	25.9	32.8	20.8

Table 9

Structure of Qualification of Intellectual Workers (classes 6-9 JKZ) in the Socialist Sector of the National Economy (excluding unified agricultural cooperatives) as of 31 October 1983

Level of school education	Per 1,000 people									
	Required education		Actual education attained		In jobs requiring a specific level of education, working people have the following level of education		Higher than required		Required	
	abs.	in %	abs	%	abs	%	abs	%	abs	%
Men										
Total	954	100.0	954	100.0	55	5.8	617	64.7	282	29.5
In that:										
V	464	48.7	318	33.3	x	x	292	62.9	172	37.1
USO	397	41.7	424	44.5	23	5.9	289	72.8	85	21.3
S	67	7.0	72	7.6	28	42.6	18	26.8	21	30.6
USV	15	1.5	38	4.0	1	4.9	10	68.0	4	27.1
Z	11	1.1	102	10.6	3	25.0	8	75.0	x	x
Women										
Total	1,197	100.0	1,197	100.0	64	5.3	842	70.3	291	24.4
In that:										
V	249	20.8	192	16.0	x	x	175	70.3	74	29.7
USO	716	59.8	602	50.2	15	2.1	556	77.7	145	20.2
S	133	11.2	132	11.1	42	31.4	43	32.2	48	36.4
USV	67	5.6	95	8.0	1	1.3	42	62.4	24	36.3
Z	32	2.6	176	14.7	6	16.9	26	83.1	x	x

#### Editor's comment:

The editors are including this article on the occasion of the up-coming INTERNATIONAL WOMEN'S DAY 1985.

We appreciate women's work and their important position and calling in society and family and we wish them lots of happiness and satisfaction in their personal lives as well as success in their work while building socialism in our country.

CZECHOSLOVAKIA

BENEFITS OF BRIGADE WORK ORGANIZATION, REMUNERATION SEEN

Prague HOSPODARSKE NOVINY in Czech No 16,1985 pp 8-9

/Article by Miroslav Kana and Zdenek Skoda/

/Text/ Today, many organizations are gaining experience in the brigade form of work and remuneration. The deputy minister of Labor and Social Welfare, Eng Premysl Tomasek, discussed in an editorial in HOSPODARSKE NOVINY No 5/1985 402 enterprises as they were at the beginning of last year. Minister Eng Miloslav Boda introduces 2,000 collectives with 50,000 workers and workshop technicians at the beginning of this year. We found an enterprise which has been using basically the same principles long before the brigade form of organization began to be talked about. When they were planning the enterprise program ZEUMS for 1981-1985, they intended to introduce a system of remunerating workers on the assembly line in a way that would reduce a large amount of overtime, standardize the manufacture of tractors and improve the quality of products. The enterprise was forced to take these steps because of an unfavorable situation: Production stalled, there were no quality guarantees even though--or maybe rather because--the work force was being augmented by many temporary brigade workers, whose lack of skills caused inevitable results. They wanted to accomplish their assignments with a stable, skilled core of workers. (AGROZET ZETOR Bron-Lisen)

During the preliminary work on introducing new forms of work organization and remuneration in the enterprise AGROZET ZETOR Bron, it became obvious that first of all it will be necessary to create the following preconditions:

- determine the number of workshops and the specific number of workers in them;
- better equipment with tools;
- secure the basis for work places at individual assembly lines, their integration into operations, even from the standpoint of time consumption;
- establish objective norms, incorporate into the workshop;

- ensure on-time, continuous deliveries of materials;
- analyze the present system of remuneration;
- use a data processor to compile aggregate norms of labor input for assembly lines and orders.--But most of all
- develop procedures for improving quality.

In other words, to organize the work and production norms in such a way that the quality of workshop output improves.

The team working on the above project had about 30 members.

#### Situation and Solutions

We asked the Economy Deputy Engineer Pavel Smid and the Manager for Economy in the Workplace Stanislav Latal, to give us a review. We wanted to know why we changed to a new way of organizing, what was the situation that precipitated it.

/Smid/ We found that each assembly line can be viewed, in khozraschet terms, as an organizational unit. Therefore we decided to introduce into these workshops a wage system that would make it possible to compensate workers on a daily basis--without placing high demands on administrative procedures--in the form of single unit pay, which would ensure optimal, hourly shift output, and resolve the fluctuation in labor input of individual orders. Our next goal was, above all, to ensure a continuous transfer of tractors to output control without detours, improve the quality of assembly work, and then do away with special shifts. We also wanted to achieve an increase in hourly wage so that monthly wages could be maintained.

We got the approval of the Federal Ministry of Labor and Social Welfare for our proposal, which has as its main premise the principle of merit, single unit fixed wage (90 percent of total earnings), apportioning of wages by using a coefficient which expresses the degree of difficulty of the job. We have used 10 percent of the total earnings to differentiate according to the coefficient of work participation by individual workers, we shall deal severely with work of substandard quality. Workers are mutually substitutable, which means that work can be assigned to them according to the needs of the workshop and the collective.

In the past, negative tendencies have appeared on the assembly lines. The workers took advantage of the fact that there were no permanent workers, that there was considerable fluctuation. To augment the workforce, there was a stream of constantly changing brigade workers, and that also affected the quality of work of the core workers. They tried to make some overtime and thus increase their earnings so that quality and completion during regular work time was of no particular importance to them. Delays were welcome.

The measures were therefore designed to improve quality. That is why we now placed on the assembly lines, as a component of the brigades, control zones which are designed to prevent penalties for substandard work. For example, for each badly assembled tractor the brigade suffers a reduction of 200 Kcs, and other penalties are levied personally against coordinators, foremen, etc.

It was necessary to explain the purpose of these measures to the people and to assure them that the volume of wages payable earmarked for production will be maintained. We have no need for them to assemble more tractors than required by the plan. We need to improve the quality of the work to the degree needed to sell the tractors.

We started therefore with key workplaces, key assembly lines. We met with the workers and said: What you are producing in overtime, you will produce during regular working hours. Your hourly and monthly earnings will be preserved. You will organize work in the collective by yourselves, utilizing the abilities of individuals. For your own benefit you will make your own suggestions for improvements.

/Latal/ We worked the time wage into the form of single unit wage. There may be perhaps 50 people working on the assembly line, and there are classes 4 through 7. Some workplaces, of course, require greater exertion, and therefore we established difficulty coefficients for individual workplaces. There may be two workers in the same class, but one of them has to put in more effort in order to maintain the working tempo of the whole collective. His hourly wage is then adjusted by the coefficient which was established by the foreman.

/Smid/ The measure of the assembly line is 10 minutes. To structure the workplace in such a way that everybody works 10 minutes is technologically impossible. There are workplaces where a man has to work 8.5 minutes or 9 minutes, while elsewhere it is 10 minutes. To balance this out is within the jurisdiction of the collective.

/Latal/ Tractors are outfitted in different ways according to order. We make 299 different models. The standard for tractors covers a norm for the time of assembly and another norm for outfitting. The assembly may take up to 2 hours. That means that in some instances the foreman may not need all his workers. The foreman and the brigade leader know the volume of orders a month ahead. They are thus able to organize orders in such a way that people can be used to best advantage, and to have as few delays as possible when changing over to a different model. They can move workers on assembly lines to different areas if they are not being utilized, because otherwise the earnings of the collective would be reduced since the total share is determined without regard to the number of people involved. Those who are moved elsewhere are paid according to results in the workplace where they were placed.

Welcomed--Unwelcomed?

/Question/ Did this system lead to stabilization?

/Latal/ We established 6 collectives using brigade form of work organization and remuneration which are managed partly by brigades, partly by the foreman. Since then there has been no need to place a single brigade worker or a single agricultural worker in those workplaces, we have been able to accomplish everything with our own people. The collectives very quickly got rid of those who did not want to do much work. The wages of each individual depend, after all, on the final results of the whole collective.

/Question/ What caused the fluctuations prior to 1981?

/Latal/ Quite often it happened that work was at a standstill because something that was needed for the assembly was missing. There was no guarantee that a tractor leaving the assembly line was complete and of good quality. We paid for the number of tractors assembled, but they were sometimes missing the exhaust system or scales, which then had to be added outside the workshop. That led to overtime and cost overruns, and efforts to supplement earnings by overtime work and through brigade reinforcements.

/Question/ You introduced brigade form of work organization and remuneration using the same people you had before. Even though they got rid of those who had little interest in working, nevertheless--in what way has the collective changed, when basically the people are the same?

/Latal/ On the assembly line we now have 84 percent of workers who are skilled operational locksmiths or automechanics, though they can also be trained for this kind of work. Naturally, that also contributes to the improvement of the quality of work.

/Question/ Yes, but you never answered my question. Shortfalls in the supply of materials can be seriously affected by workers assembling the tractors.

/Latal/ I will come to that in a moment. Since we have established stricter rules for the workers according to the new form, which they have to follow in order to earn the appropriate remuneration, we also had to create appropriate conditions, back-up material among other things. That is why we also endeavored to motivate workers in the supply sector and foremen in the machine workshops. We put it to them that they should not cause any slowdowns, among other things. If they do cause a slowdown--which has not happened so far--their premiums will be reduced by 1 percent each day. But above all, before we even began to introduce the new form of remuneration, we objectivized the production norms. That was in 1981 and 1982. Based on the review of these norms we established the labor input of individual orders including outfitting, i.e., tractors, in hours. Then we established the optimum number of workers needed. Thus, even before work began to be organized according to the new form, the number of workers was already

reduced. There are tables for these norms which set the amount of remuneration according to what percent of the norm has been fulfilled. Each order also stipulates what share of the work should be performed by each class. We established classes in order to determine remuneration, but to make things simple we no longer include them in the tables.

#### How People Performed

/Question/ Are poor and good workers differentiated?

/Latal/ We have a fund to this end, which is formed in each collective out of 10 percent of the total earnings of the collective. In the case of the final assembly line it amounts to 15 percent. This sum is apportioned by the foreman using the coefficient of work participation. He assigns points to the workers according to five fixed criteria.

/Smid/ This system of remuneration and calculation enables us to evaluate each shift separately and daily. Each worker knows by 10 o'clock the following day how much he has earned. That is not usually the case in other enterprises.

/Question/ Is the 10 or 15 percent of the earnings of the collective a sufficient differentiation?

/Latal/ It would seem that 10 percent is too little. On the final assembly line we are using 15 percent. In other collectives, where we shall introduce this form of organization in the future, we shall set aside (illegible) percent.

However, this amount will be reduced when deficiencies are being made up in overtime, by about 16 Kcs per hour. That is why people like to stay here, without putting in for overtime.

/Question/ Along with the manager of the collective the foreman stays on. Is not this a duplication of functions, or might they not have overlapping jurisdictions?

/Latal/ A brigade leader is one of the foremost workers, usually a coordinator. He is approved by the collective, the Revolutionary Trade Union Movement and the management. The foreman has to be there too, however. The need for this function was studied here by an official of the Federal Ministry of Labor and Social Welfare. In the manuals on brigade khozraschet it is stated that even a foreman can be a brigade leader (viz. principles published in RUDE PRAVO, 14 March 1985). But in our opinion a foreman should be concerned with other tasks, which are to do more with the future of the workplace, whereas a brigade leader resolves operational work problems. For that he receives a bonus of up to 1.50 Kcs per hour according to the number of workers in the collective.

/Question/ The earnings of the brigade depend on the number of products, therefore on the plan. Does a collective have the opportunity to take part in the creation of the plan?

/Smid/ The brigade leader together with the foreman takes part in consultations three or four days before the beginning of each month, when they examine the content of the orders for the following month. At that time they can raise questions, and the production managers will discuss and resolve them with them. And then they have time to organize their work.

/Question/ For how many workers and collectives are you organizing work in this manner?

/Latal/ We started evaluating this on the gear box assembly line on a trial basis from 7 April 1982 on and specifically from 7 May 1982 on (66 workers). Subsequently this system was introduced on the transmission assembly line starting 7 January 1982--60 workers; on the paint tunnel beginning 7 February 1982--18 workers; on the control zone assembly line II beginning 7 December 1982--16 workers; on the final assembly line beginning 7 April 1983--112 workers. Another collective is the one in Havlickuv Brod, which is the only one interested in quantity--increase in the number of produced front axles. Three collectives are in the metallurgy sector, one in general maintenance, one in tool management and one in machine works which engage in general overhaul of machinery. Altogether, there are 13 collectives with 420 people organized in the enterprise.

We anticipate an increase in the second half of this year, because in the first half we are working on the second stage of ZEUMS.

/Question/ So far, we have been discussing mainly the fact that you have introduced the brigade form of labor organization and remuneration and what its rules are. How about the results?

/Latal/ First of all, it is gratifying to note that labor productivity in these workplaces has risen significantly. I do not know the precise amount of overtime, but in the past it used to amount to 10 to 12 percent. There has been also a reduction in the number of defective products which previously managed to pass through control. Beyond control zones, which have their own specialists, there are workers experienced in quality control. As we already said, if something gets through, there is a deduction of 200 Kcs for each badly assembled tractor, the zone--again the workers of the collective--gets a penalty deduction of 50 Kcs. But it may happen that e.g. a hydraulic system was supplied by a subcontractor, the defect showing up at a later date, then in that case we cannot penalize our workers, since it was not their doing.

/Question/ Did the workers accept the principles of the new organization, or do they have reservations?

/Latal/ Delays on the assembly line are now unknown. Participation in its management by all its workers has indeed increased. In my opinion the attitude of people toward the brigade form is very positive. They are satisfied, tend to their work and do their best to keep things in order, because that keeps their earnings in order, too. Hourly earnings have risen approximately 13.9 percent.

These are observations on the experiences of the first six collectives. Others were established last year, and we shall review them in about four months.

#### Downstairs in the Workshop

After talking with the managers of ZETOR we visited the workshop, the transmission assembly line. We were interested in the opinion of the man who is immediately affected by the brigades. Comrade Frantisek Tichy, brigade leader, was also performing the duties of foreman at the time of our visit. We asked him how the two functions differ, if it is not a duplication. Collectives consist of about 30 to 50 people on each shift, and each shift has its brigade leader and its foreman.

Comrade Tichy says no. The foreman takes care of organizing and making certain that assembly is done according to the plan, he plans production and utilization of the plan. If you have noticed that some statements are being repeated, we did not delete them deliberately. We keep to our notes, because we think that there could be a difference between the view from the office and the view from the workshop, where the real tractors move in time, and where people are actually dependent for their earnings on the working conditions.

/Question/ What then is new about the work of the foreman?

/Tichy/ A foreman gains the advantage of having more time for actually being a foreman. He makes certain that materials are available, takes care of the technology, attends morning consultations, and has the opportunity to think through the organization of his center in reference to future tasks.

/Question/ Your brigade duties take up your time. Are you compensated for it?

/Tichy/ I receive a bonus of 1.50 Kcs per hour. I am a coordinator and I am therefore responsible for planning and as a brigade leader I assign work.

/Question/ Is this not done a month ahead?

/Tichy/ Work is organized concurrently. (During our visit workers came up to us several times to say that they have finished something, that somebody was missing, to ask what to do. The brigade leader made decisions immediately.)

/Question/ Has there been a marked change in earnings?

/Tichy/ Previously they were 15-16 Kcs per hour. Today, the less efficient ones make about 16 Kcs, the better ones about 20 Kcs. Out of the 10 percent share of earnings, which is earmarked for differentiation according to merit, an individual can earn between 0-600 Kcs a month.

/Question/ We would like to know what criteria are being used.

/Tichy/ First: fulfillment of assignments for the assembly line; second: quality and economy of work; third: using and sharing work experiences, cooperation with the foreman and others, discipline, reliability, and conscientiousness.

The brigade share is apportioned according to the coefficient of work participation. For the total collective the average has to be 1. Individually it is possible to attain a coefficient of 2, in reality it fluctuates between 0.3 and 1.6. For being absent the coefficient is 0.0, no share. These coefficients are determined by the brigade leader.

/Question/ Are there any problems in connection with it?

/Tichy/ Obviously, we have to negotiate with people, but by and large it can be accomplished without any great friction. They understand that it is necessary to take care of the work, they are supportive. The collective does not protect those who do not want to work, on the contrary. In order not to stand still, we have to have ready supplementary, albeit productive work, for instance an assembly of systems of joints as spare parts.

/Question/ Is the 10 percent sufficient to make the distinction in effort?

/Tichy/ Well, the authority of the foreman, as well as merit appreciation, would profit from a larger share.

/Question/ This then concerns extra work. And what happens if quality goes by the board? What if defective products get to the control zone?

/Tichy/ Then a system of appreciable deductions goes into effect, affecting the personally responsible worker, the coordinator--including even me--the painters.

/Question/ How about the paper work?

Tichy shows us the sheet Daily Report on Output of the Assembly Line and Wages Paid. It is compiled by the planning group based on information supplied by the foreman and the brigade leader. He tells us that the calculations according to tables are relatively simple and workers can find out each day how much they have earned.

The goals for the collective brigades are established quarterly by the following indicators:

--planned labor productivity per worker;

--maintaining the limits on repairable defects per tractor unit;

--observing the limits on overtime, which the brigade is allowed to the extent of about 0.5 percent in order to prepare the assembly line for retooling for a different model, or if it is necessary to make up for a large number of absent workers.

These are comprehensible goals, easily calculable, and above all they ensure quality. They can be modified. For example, we are moving from the fourth modernization to the fifth. The products are more complicated, and at the start the number of defective products that get through may increase. That has to be taken into account.

#### The Opinion of the Director

Engineer Jindrich Peterka, CSc, enterprise director, is satisfied with the achievements of collectives working in the brigade form thus far. He said that unused capacity exists everywhere, the only problem is how to activate it. When this "wage experiment," as it was originally called, was being planned, it seemed to him that the preliminary work was after all only an extensive management project. But then it became evident that order in norms and explanations, direct discussions with people, proved useful.

One cannot shift responsibility only to those working in the shop. They would not appreciate having to shoulder the worries that may arise for the collective. When even good intentions from above cannot be implemented on a regular basis, the reason is always the same: proper conditions were not provided. And so in this case, too, the economic management has to accept its share of responsibility and create for everyone in the collective the best possible conditions for making the most of their abilities and fulfilling promises.

This concerned mainly the securing of materials--to that end it became necessary to form linkages with sub-supplier plants in the enterprise, make the sector of industrial distribution accountable. If earnings are subject to output, then proper conditions for this output have to exist, and both output and earnings have to be fully affected by the collective. "You produced less--you get less" cannot count when output is reduced by external influences.

There were positive results: Production is up and the number of assembled tractors is somewhat higher. The competence of workers on the assembly lines is respectable, and they have an opportunity and a desire to earn more. The production is more uniform, the quality of assembly and paint-jobs is better, overtime has almost disappeared and there is no need for brigade assistance.

The director considers it an essential condition to select operations with a closed cycle, where the collective has an opportunity to influence the course of work, and where workers can interchange with each other. To be able to interchange, to have more than one skill, is also very important. More difficult conditions for instituting the brigade form of work organization will be found in machinery operations, such as for example those making cog-wheels, where interchanging is not as easy. However, the management is looking into ways to achieve such internal integration, so that the system can be extended to other collectives.

Future collectives will be formed with a view to strengthening quality requirements, the collective share of earnings could serve to this end, increased from 10 percent to 25 percent.

In 1987 we are to start producing the third uniform line of tractors, which means that assembly lines could be organized quite differently. It will then be necessary to change also the rules of interest in results. Results are what counts, nothing else.

What we saw in enterprise ZETOR raises another question. When workers reach the height of specialization, it seems that its usefulness comes to an end. It brings boredom in the monotony of the day, a dulling in the course of months. Assembly lines are notorious for it. In a collective which is organized along the brigade system, it is therefore desirable that one worker can take the place of another, that they have multiple skills. It is necessary to vary the work, to change, make work more interesting, have workers recognize the interdependence of operations, the effect an individual's effort has on the effort of his neighbor. This brings multiple benefits. Benefit for the worker, the enterprise and the society.

A brigade will also, in its own interest, bring pressure on management to ensure better results by better organization. It needs and insists on having a more continuous supply of materials, supplies, tools, and it takes care of it by itself. It needs order in norms, it compares merits and points out inconsistencies. It has no intention of making up deficits on free Saturdays and Sundays, and it demands its week-end just as other professions do. Cooperation with connecting sectors is increasing. The methods of division of labor are changing. It supports de-equalization of remuneration, because better work deserves better pay--who are we working for anyway? Less work--less money.

There will be consideration of long-term goals. Utilization of equipment, new technologies and techniques are of vital interest to the collective.

Clear guidelines prevent subjectivity in determining contributions to the results. The system of remuneration on the part of the management is being simplified, and a clearer connection between reward and output is being sought. Such requirements from both sides speak in unison and converge.

That is what we anticipated and worked for. Only that would be unbelievably simple. What is much more interesting is the reason for so many of the problems: the criteria--the norms. They have to be precisely defined first. ZETOR began to do this years ago. It is obvious that those who did not put their norms for labor input in order, have difficulties in determining what "should give" is and what "gave" is.

Further, how to simplify merit assessment. Where they did not create closed circles of operations in such a way that it can be precisely determined where quality defects occur and responsibility can be assigned to the most closely involved circle of workers (or even to find an individual among them), but on the contrary they defined merits for better results, there it will be difficult to punish poor quality and reward initiative, effort, care, and to make it clear that such attitude pays.

From all this we can draw only one conclusion:

Initiative depends on the system of motivations both positive and negative, it is a matter of management, which can use economic levers as well as many others. It is expressed even in the term "brigade form of work organization and remuneration" where one does not mention remuneration first. In ZETOR we could see that the primary goal is to maintain quality standards, a cardinal problem for success in exports.

This, above all, was the reason for the initial experiment in AGROZET ZETOR Brno.

That is why we went there.

Results of brigade form of work organization and remuneration in the municipal enterprise AGROZET ZETOR.

Negatives: Established production relationships in the enterprise were disrupted, and there has been a tendency to change over to a workplace with a brigade form of organization from other important operations (for example, tool workshops).

Positives:

	Before introduction in 1981	After introduction in 1983
Overtime per tractor	2.59*	0.33
Labor input of individual workers per tractor	28.85	22.65
Hours worked by workers other than regular staff (brigade workers) hours per tractor	2.28	0.26
Nonproductive work (for example, finishing incomplete assemblies, make-up work, changeover to a different model) hours per tractor	2.27	0.36
Idle hour per tractor	0.90	0.0
Labor productivity increased in comparison with 1981 by		30.9 percent
Hourly wages grew by		13.9 percent
Number of vehicles not accepted by production control ZETOR declined by		35.0 percent
Penetration of defects between control zones according to zones declined by	31.5 percent	to 79.0 percent

\* 10 to 12 percent hours worked

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CZECHOSLOVAKIA

## SLOW PROGRESS IN REDUCING LABOR, MATERIAL INTENSITY CRITICIZED

Prague RUDE PRAVO in Czech 3 Jun 85 p 1

[Editorial: "Perseverance in Setting Standards"]

[Text] No economy can afford to put in more time in production than is absolutely essential, or to use more materials than is actually necessary. Years of practice have confirmed that one of the most effective means for effectively allocating time, materials and energy are standards of all kinds.

Standardization of active use of labor and technical and economic norms has a long tradition in our enterprises. It is unfortunate that often these standards have been quickly forgotten or have not been further developed, meaning that the implementation of norms has not always become a vehicle for improving work organization or eliminating nonessential losses, nor have they served to properly evaluate the contribution of each employee or his motivation. At the start of the Seventh 5-Year Plan the sophistication of the norms and their setting procedure were not up to the tasks that faced our economy. An analysis of the overall experience with labor utilization standards carried out in 1980 indicated, for instance, that less than 46 percent of the employees in production--including 38.7 percent of blue collar production workers--were covered by such standards. The same was true of 3.1 percent of workers in service activities and 3.8 percent of the technical and managerial employees. At the same time certain standards and labor usage norms have begun to lag significantly behind actual production conditions, resulting in substantial overfulfillment, which can reach 120 percent per sector. It is not unusual for individual workshops to exceed norms at a 160 percent level. Similar shortcomings have existed in standards for the utilization of materials, raw materials and power, all of which basically tolerated inputs in excess of those required by production. It has not been and is not currently possible to find a way to develop the economy intensively or implement the merit principle in compensation in view of such shortcomings in the standards base.

For this reason a primary task of the first stage of the program in improving the efficiency of the wage system was a one-time objectivization of all labor use norms by 1983, a reduction of at least 15 percent in the number of workers whose jobs are not covered by standards. The formation and use of other technical and managerial norms were also to be changed. Basically it was possible to fulfill this task, but this in no way means that the area of standards will

move from center stage as far as attention goes. Above all, the program in question anticipates an ongoing periodic assessment of at least 20 percent of the standards each year and a reduction in the number of workers not covered by norms of at least 10 percent annually. The setting of standards cannot be carried out with a one-time campaign, but must be considered an ongoing activity if it is to be successful. Recent experiences with a number of persistent shortcomings indicate, finally, that despite the quantitative fulfillment of tasks of the first stage it will often be necessary to return to the setting of standards and much more thoroughly and carefully examine our approach.

Even though we have succeeded in fully mastering the quantitative requirements of this task, albeit with some delay, the quality of the work performed leaves something to be desired. To be sure, standards have been objectivized, but the updated norms were not always put into effect immediately. In many cases the objectivization ended up in a drawer. Nor were all standards objectivized with sufficient rigor. Often they were not formulated analytically but by guesswork, often with the justification that some norm is better than none. Inspections have also uncovered instances where managers have increased the number of enterprise service jobs covered by standards, in order to meet their assigned targets, by setting standards for cleaning people, while important sectors such as maintenance, warehouse management or tooling rooms continue to work without standards.

What is the reason for these shortcomings? Above all, senior managers have not understood the importance of setting standards, they try to avoid possible conflicts at the work site. The truth is that supervisory offices more or less tolerate this approach through ineffectual pressure and sloppy control. The measures that have been implemented in the setting of standards have been set by directive, because at the time when they began to be fulfilled, the VNJ were not put under enough pressure to force them to mobilize internal capabilities, or to set up a quality standards base.

The above situation more or less persists. In areas where it is easy to obtain new equipment, investment capital, labor or to unjustifiably modify the plan, they truly have very few reasons for the rapid implementation of objectivized standards or to search for possibilities to improve them. At the same time, the use of the work day and the intensity of work still display significant shortcomings and studies show that as much as 20 percent of the work day is lost unnecessarily at some facilities.

Technical and economic standards similarly tolerate unnecessarily high consumption of materials, energy and raw materials. Supervisory economic agencies as well as party agencies and organizations must effectively counter these inflated norms and take the steps necessary to adjust them. After all, sloppy norms which are knowingly left in force legitimize mediocre work intensity and make it therefore impossible to exploit possibilities to utilize capabilities more fully, and to increase output, there they seriously harm our economy. Seeking the path of least resistance such as by meeting targets by ineffectively substituting equally expensive materials or requesting increases in wholesale prices or by working overtime, is a tendency that we must resist.

There is no doubt that standard setting remains a very sensitive question and that it is often the subject of conflict. A number of quite unnecessary losses occur, however, because the focus of a given standard is not completely understood or because no one has taken the trouble to explain its purpose to the employees. Tightening norms in no way means an attack on wages, as shown by the measures that have been approved for wage equalization where norms have been tightened. It is just a matter of utilizing only as much labor and materials as is absolutely necessary. Where technology has been improved and labor productivity has increased apart from the effort of an employee, leaving the original norms in place will only result in his personal gain but to losses for the enterprise, the sector and the economy. In other words, such self-interest is clearly a very shortsighted attitude.

Finally, in a situation where norms are remaining static it is difficult to come to terms with egalitarianism in compensation. An obsolete norm increases unjustifiably earnings relative to those tasks where there has been no change in the conditions of work. This is the source of the quite discredited theory that there is well paid and poorly paid work.

One of the manifestations of a poor attitude towards standard setting is the critical shortage of efficiency experts. In recent years, to be sure, their numbers have increased by more than 2,000, but this is still too few in terms of the demand. Moreover, a high percentage of these experts transfer to other divisions so as to avoid conflict situations where either management or party or union organizations have not been sufficiently supportive of their efforts. This is the case with as many as 20 percent of the efficiency experts each year. It is therefore essential to change the image of the work of efficiency experts so that workers will not perceive them as enemies whose sole function is to tighten norms, but as trained specialists whose expertise is used to improve the organization of work, the work rhythm, and thus the economic performance.

The foregoing implies that many tasks still await those involved in establishing norms for the utilization of labor, raw materials and materials. Unnecessary vacillation in tightening norms, moreover, can harm our national economy, while an assertive approach to these issues can only mean progress for everyone.

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CZECHOSLOVAKIA

## NEED FOR INTENSIFICATION PROGRAMS IN AGRICULTURE STRESSED

Prague HOSPODARSKE NOVINY in Czech No 16, 1985 p 1

[Article by Eng Jaroslav Tlapak, minister of finance of the CSR: "At Least the Average"]

[Text] We have long considered one of our most important agricultural tasks in accelerating the growth of self-sufficiency in food production to be the elimination of unjustified differences in the economic performance of agricultural organizations operating under comparable natural conditions.

### Increasing Available Resources

This problem is being attacked with intensification programs established after the 4th CPCZ Central Committee Plenum at slow and below average agricultural enterprises. The stimulus for announcing the programs were the adopted party document and CSSR Government Resolution No 256/1980. These in turn were a response to the results of an inspection by the CSSR People's Control Commission which was aimed at determining the reasons for the low level of management performance in some agricultural organizations. Intensification programs have also become an inseparable component of measures to improve the planned management system in agriculture from 1982. To a large extent they have been set up in conjunction with okres party and economic agencies. The basis was thus created for a gradual consolidation by means of comprehensive measures of a production, economic, organizational and personnel nature, the fulfillment of which should lead to an improvement in the management performance of lagging organizations to the level of average organizations, and the management of average organizations to that of superior organizations.

The intensification fund, which is subsidized each year from public resources, was set up to support the fulfillment of approved programs. Certain organizations receive from this fund both operational and investment subsidies. It is clear that increasing the available resources to slow enterprises from state resources in itself cannot resolve their difficult economic situation. Its major purpose is to assure that equipment, materials, raw materials and labor are being used just as effectively in these enterprises as in firms with good economic performance records.

In the years 1982-1984 the intensification fund served as the conduit for Kcs 1.276 billion from the state budget of the CSR to state agricultural organizations for operational use, and Kcs 1.514 billion for investment projects. For cooperative organizations the figures were Kcs 450 million and Kcs 1.72 billion respectively. Operating subsidies are earmarked above all partially to compensate for the costs of intensification (purchasing seed, fertilizers, chemicals, animals) and the costs involved in improving the soil (e.g., restoration liming, anti-erosion measures, recultivation of temporarily unused soil).

Investment resources are provided through okres agricultural administrations in the first place to partially cover the costs of arranging for investments that contribute to a reduction in harvest and warehousing losses (machinery, grain silos, potato storage facilities, hay mows). They also support the development of cattle breeding and in part serve to finance special agricultural investments, for instance to build pit silos, grazing areas, agricultural roads, or to plant orchards, hop fields and vineyards.

#### Impact on Growth Rate

Subsidies from the intensification fund are awarded to an organization only after it has fulfilled specific tasks for which the resources had been promised. If these tasks are not fulfilled, or are underfulfilled, then the subsidies are reduced by the middle links in management.

In view of the national importance of eliminating unjustified differences in the economic performance of agricultural organizations and in view of the scope of the resources provided for this purpose from the state budget, the Ministry of Finance of the CSR is devoting considerable attention to the fulfillment of intensification programs. To evaluate the results that have been achieved it uses for the most part data monitored by computer at all organizations which have intensification programs in place. This includes 66 state farms and 261 united agricultural cooperatives [JZD] which are operating on more than 36 percent of our agricultural land. During inspections the most attention is paid to task fulfillment within enterprises which during 1981 reduced the loans they were drawing from national resources.

Findings from these inspections show that lagging agricultural organizations produce lower levels of gross agricultural production and profit per hectare of agricultural land and have a lower return on assets than other firms. They also carry a higher debt load per hectare of agricultural land and are more poorly outfitted with capital equipment. They do show, however, more rapid growth rates in comparison with other agricultural organizations. For example, lagging united agricultural cooperatives [JZD] recorded a growth index of gross agricultural production per hectare of 115.6 for 1981-1984, while the index for JZD as a whole was 109. Similar trends are evident in profit indicators as well as in the achievement of lower increases in loans.

The management of lagging state farms does not show such unambiguously positive trends. State farm performance between 1981 and 1984 points to a somewhat slower growth rate of gross agricultural production per hectare of agricultural land (an index of 110.4 in comparison with 111.1 for all state farms). There

was, nevertheless, a more rapid increase in other economic indicators which made a decline in outstanding loans per hectare of agricultural land possible.

A tendency for lagging organizations to comply with tasks of the intensification programs is evident in all krajs, even though the results vary.

#### Not to Overestimate What Has Been Achieved

The Central Bohemian kraj has the largest number of JZD and state farms that are operating under intensification programs. Of the 192 agricultural enterprises in the kraj 107 have developed intensification programs (87 JZD and 20 state farms). Special attention has been devoted to 33 organizations (25 JZD and 8 state farms) that operate on 21 percent of the available agricultural land in the kraj. At these 33 enterprises gross agricultural production increased between 1981 and 1984 by 11.3 percent, and profits last year amounted to Kcs 88.941 million, which should be compared to a total loss from operations in 1981 of Kcs 109.768 million. In 1981 27 enterprises were operating at a loss (20 JZD and 7 state farms), while in 1984 there were only 4 such operations (3 state farms and 1 JZD).

Analyses have indicated that intensification programs are fulfilling their designated purpose. Lagging enterprises in both sectors have improved their economic performance over the past 3 years which in turn has made it possible to narrow the gap between lagging organizations and those that are performing normally. Some agricultural enterprises have already fulfilled their established objectives and moved up among the average enterprises.

The positive results that have been achieved should not be overestimated. Favorable climatic conditions over the past 3 years have been partly responsible for them, and in the financial area the economic measures of the improved planned management system for agriculture have helped as well. Nor can one ignore the fact that the overall positive results of the managerial performance of lagging enterprises hides the performance of those that are basically stagnating. Economic agencies must exert far stricter control over these agricultural organizations and demand that they comply with programs that are in place by the end of the Seventh 5-Year Plan, thereby mobilizing available capacity which has so far been reducing the efficiency of our agriculture.

9276

CSO: 2400/450

JPRS-EEI-85-060  
22 July 1985

CZECHOSLOVAKIA

#### BRIEFS

NEW TECHNOLOGY EXHIBITION--The exhibition days of new technology of the Electronic Research at which the latest Czechoslovak electronic products and their components are on display, opened in Bratislava yesterday. [passage omitted] The opening of hte exhibition was attended by Peter Colotka, member of the CPCZ Central Committee Presidium and Slovak Premier. In conversation with representatives of the organizers of the exhibition and manufacturing organizations he enquired primarily about the training and opportunities for new cadres in the electrical engineering industry. [Excerpts] [Prague Domestic Service in Czech and Slovak 0001 GMT 25 Jun 85 LD]

CSO: 2400/498

GERMAN DEMOCRATIC REPUBLIC

TRANSPORTATION RELATED PROBLEMS OF FOREIGN TRADE DISCUSSED

East Berlin DDR-VERKEHR in German Vol 16 No 3, Mar 85 pp 68-71

[Article by Dr Joachim Matthaei, 'Friedrich List' College for Transportation; and Dr Hans-Ulrich Schulze, 'Bruno Leuschner' College for Economics: "Foreign Trade Transportation in the Transport System--Principles and Current Problems"(\*)]

[Text] 1. Statement of the Problem

As the prerequisite for and the consequence of the trend toward the increasingly greater international division of labor, foreign trade transportation as a general reflection of the material commodity movement of foreign trade merchandise is steadily gaining importance.

This undisputed claim, though, confronts the fact that its status in the transport system and close dialectical interaction with the quantitative and structural development of world trade and similar relations have not yet been comprehensively examined. While, on the one hand, foreign trade transportation must adapt to the main trends of the flow of commodities resulting from international trade, is able to rationalize and speed up the flow of freight, innovations in transportation methods, on the other, often represent the starting point of the development of new transport systems which promote world trade and expand the sales territories of producers (1, p 91).

From this aspect we intend to provide a survey, stemming from interdisciplinary cooperation, of the current status of knowledge regarding this group of problems. In this context, the fixing of the location from the system aspect is also designed to illustrate, by means of topical problems, the interplay between foreign trade, transportation and foreign trade shipping.

2. Definition of Foreign Trade Transportation from the Aspect of the Transport System

A system is generally understood as the sum of interacting elements. Several elements form groups of elements, which are described as subsystems. The various scientific disciplines differ in their interpretation of the term "system" (2, p 251). Richter (3) recommends that the term transport system be

subdivided as follows:

- The real transport system and
- The abstract transport system.

Real transport systems are interpreted as the total of real objects including the functional relations between them--to carry out specific transports in a specific region (3, pp 1053 f). The forms and structures mentioned as examples are subdivided by

- The object of the transport (freight, passengers, communication transport systems),
- Its extent and scope (international, national, regional, urban transport systems), and by
- Technological aspects (conventional freight transport systems, container transport systems, and so on).

They may therefore be assumed to be the starting points for the definition of foreign trade transportation within the transport system. Consequently, foreign trade transportation is

- Part of the freight transport system,
- Part of the international transport system, and
- A conglomerate of conventional and nonconventional freight transport systems.

Such a classification does not involve an alternative form of subdivision for real transport systems (and the same applies to other forms mentioned). Instead it is a simultaneous form of subdivision (3, p 1054).

The relative autonomy of foreign trade transportation is based on the fact that--to a much greater extent than domestic freight transportation

- It is subject to external influences (economic, commercial, technical-technological, organization of traffic, political, and so on), which might either help or hinder it.
- It has a different objective, in so far as, for example, shipments by transport branches which operate profitably in terms of foreign exchange are not reduced but, in order to earn foreign exchange, actually expanded and that, therefore, shipments which remove or reorganize goods take on a different orientation, while transport operations across long distance are not rejected out of hand, and so on.

Another reflection of this differentiated objective is last year's perfection of transport planning, which provides for the separate planning and settlement of transportation for international freight traffic and domestic freight traffic (4, p 257).

Foreign trade, transport, rate and forwarding aspects thus combine to a determinant factor, a definite group of elements (in the meaning

defined), which justifies the designation of foreign trade transportation as a subsystem of the transport system. Foreign trade transports represent a country's transportation arising from the realization of foreign trade transactions. They are

- In the narrower meaning the transportation and related transshipment and warehousing services of the respective country's exports and imports,
- In the wider meaning transportation, transshipment and warehousing services on behalf of foreign customers (exportation of services) or the use of such services by foreign TUL [transportation, transshipment and warehousing] enterprises (importation of services).

Both these are intimately connected, and we often note close economic and transport technological interaction demonstrated, in particular, in the stages of preparing and carrying out the shipment. To some extent we may even call it linkage. A good example is the shipment of GDR foreign trade commodities to the FRG by GDR trucks (in other words foreign trade transportation in the narrower meaning) and the same GDR truck's loading of GDR exhibits for transportation to the USSR as transit freight (in other words foreign trade transportation in the wider meaning) and back with import goods from the USSR to the GDR.

### 3. Foreign Trade Transportation at the Intersection of Foreign Trade, Transportation and International Forwarding

#### 3.1 Foreign Trade and Foreign Trade Transportation in Changed Conditions of Reproducibility

The crass exacerbation of the contradictions in the capitalist world economic system and the currently typical interlocking of various crisis manifestations (general, cyclical, structural and monetary crises) result in substantially aggravated rivalry on international markets. This is modified and complicated by the various forms of economic warfare initiated by the United States as well as by state monopolistic discriminations of socialist countries.

We therefore witness the growing effect of custom tariffs on, and other obstacles to, the exports of the socialist countries and their consequences for foreign trade transportation by the exporting countries' own means of transport. These include

- The failure to grant most favored nation treatment to socialist countries (by the United States, for example), and
- The refusal or sharp limitation of import licenses for many export products.

As a result it is often necessary to open up new markets for GDR export commodities, which sometimes involves greater transport distances and costs.

The increasingly restrictive and more consistently applied licensing of truck

imports by European capitalist and industrial countries as well as the prevalence of compulsory flag rules in the marine transport of some countries exert direct influence on foreign trade transportation. Here also it is imperative to respond flexibly so as to keep as low as possible the foreign exchange outlay required for foreign trade transportation while still satisfying market demands.

In the conditions of greater competition on foreign markets, transportation is increasingly used as a tool of the competitive struggle for the promotion of product sales. As a rule the purchaser expects the settlement of the transportation problems involved in the purchase to respond to his needs. Other services customarily complement transportation as such. They are linked to transportation, complement it and are described either as "transport services" or "secondary transport services." They include a type of transport specific to the customer and the commodity as well as the relevant communication and information links. In GDR foreign trade, it is the duty and function of foreign trade transportation to back the saleability of the export products. The foreign trade tasks to be accomplished require the availability of freight transport services acting as the means for the exertion of active influence on the markets.

It is therefore necessary to offer foreign trade transportation suited to the market at the lowest possible expenditure of energy and other costs, especially foreign exchange. We may speak of foreign trade transportation suited to the market if

- a) The customary requirements and terms of the transport markets are at least met or better opportunities offered from the aspect of the technical-technological standard, transport quality and prices,
- b) The customary terms and requirements of commodity markets are satisfactorily met,
- c) The concrete needs and requirements of major customers are met,
- d) The price-performance ratio at least meets the customary terms.

Marketability and foreign exchange profitability must be safeguarded while transport costs and energy use are held to a minimum. In this dialectic unity, the concrete requirements of the foreign markets and the greatest possible foreign exchange efficacy represent the decisive aspect--or, in other words--any lowering of transport costs, the most efficient division of labor among the branches of transportation and the minimization of energy use must not result in a lowering of the marketability and foreign exchange efficacy of foreign trade transportation.

This represents a significant scope of duties for international forwarding which should promote commodity and services exports by studying and drafting efficient transportation variants. The supply of complete transportation services at fixed rates and multimodal transportation services (to be dealt with later) can contribute to the supply of transportation services suited to the market. Finally another aspect needs to be emphasized, which is directly

related to the above mentioned requirements. The effects of the crisis in the capitalist industrial countries, such as sales risks, the greater cost of credit, and so on, are causing many customers to conduct business more cautiously, in the shorter term and in smaller volume.

The current market situation enables the respective buyer to transfer to the seller practically all warehousing functions and the necessary stockpiling, and to call for delivery at short notice. The competitive situation requires us to respond more quickly and flexibly to this situation.

### 3.2 The Effects of Foreign Trade Changes on Foreign Trade Transportation

When considering the effects of foreign trade changes on foreign trade transportation, we are not thinking primarily of basic innovations in transportation equipment. Instead, in the given situation, we are mainly concerned with the elements of demand from the aspect of world and foreign trade, foreign trade and transport policy, technology, commercial and economic considerations (in this context, classification under one or the other aspect may often proceed as "both...and").

Especially significant with respect to world and foreign trade is the knowledge of trends on international transport markets (in addition to the commodity markets mentioned elsewhere in this article).

The crisis-like development of the capitalist world economy is reflected in the following main trends on international transport markets:

- Scientific-technical progress in all spheres of material production, the shift of labor intensive production from capitalist industrial countries to developing countries with lower wage standards and the recession related stagnation of economic growth in the capitalist states is demonstrated in structural changes of international trade and some shrinkage in the supply of cargo on the transport markets.
- This relatively reduced demand for transportation services while transportation capacities remain the same or are even on the increase, is also creating more severe competition and crisis-like manifestations on the transport markets such as the under-use of transport capacities and aggressive rate wars (price competition).
- Competitive advantages are achieved by transportation enterprises which resolutely apply scientific-technical advances and sometimes become a monopoly by way of special transport systems such as container syndicates, or which provide a sophisticated response to the logistic needs of enterprises in the sphere of production and circulation.

Foreign trade transportation serves the fulfillment of foreign trade contracts concluded between buyer and seller. The respective transportation contract is a kind of auxiliary delivery contract, complementing the foreign trade contract which is the main contract.

It follows that the system-internal requirements of the respective transport

system are subordinated to the concrete needs of foreign trade. In other words, foreign trade requirements represent important objectives for the respective transport system. Close cooperation between foreign trade and transportation is needed to respond appropriately to current market conditions.

Important from the aspect of foreign trade and transportation policy is, among others, information about the custom and licensing system in the partner countries, about subsidies, export promotion and state monopolistic regulations.

By international agreements and treaties, for example, foreign trade and transport political activities create the prerequisites and favorable external conditions for the efficient organization of foreign trade transportations.

From the aspect of technology, it is easy to spot the trend in the demand for special transport equipment (such as container equipment, roll on/roll off equipment), which is effective only when transport chains are established.

Currently a seaward transport chain begins at the export enterprise and more or less finishes on board the ocean-going ship. When we deal with multimodal transports, the chain continues to the overseas buyer of the commodity (recipient). Free construction site shipments represent a good example. The multiplicity of the cooperative relations involved requires the precise planning and organization of the total process--a task up to the multimodal transport operator (MTO). If the latter may be a carrier (for example a shipping company) or a noncarrier (for example an international forwarding agency), we should--in GDR foreign trade transportation conditions--advocate the assignment of this function to the Deutrans Combine VE, because this boasts the appropriate facilities and experiences, in particular with regard to the sphere of container forwarding and plant transportation (5, p 1025).

This trend is strengthened by the recent emphasis on foreign trade forwarding, which may be considered a main function within the GDR's international forwarding operations (see 3.3). In the case of multimodal transports including sea routes, this certainly does not preclude close cooperation with the marine shipping company (as the main carrier). On the contrary, such cooperation is indispensable, and not only in the operational sphere. As we all know, the UN Convention serving as the basis of such shipments primarily settles relations with transport customers. Left open at the present time are quite significant issues relating to arranging cooperation between the various branches of transportation as well as those pertaining to banking and insurance law (6, p 285).

It is properly pointed out that transport chains must be comprehensively combined with information and documentation chains. This represents a requirement of rational process organization as such. This also arises from the fact that, as the result of structural changes, the share of date-related (timed) foreign trade commodities is bound to increase further, involving a consequent rise in the demands on communication technology. This should also be understood to mean that the data required at all stages of the course of a foreign trade shipment must be readily available to the partners cooperating

in the chain. Examples are data on order placement, stocks, dispatch planning, the TUL processes in the narrower meaning, shipment-related interim warehousing and also purely commercial data such as invoicing, expiry dates of letters of credit, and so on. It is imperative, on the other hand, that the overlap between companies inherent in the transport chain is to be made analogous to the information chain so as to avoid any discrepancies due to parallel and separate concepts of automated data exchange ("island effects").

From the commercial aspect, the demand element tends to result in the commodity related choice among the possible transport variants which are customary on the respective market and typical for the commodity in question. However, this does not mean that the proportionally determined transport demand is in any doubt (7, p 240).

Indeed, as regards the marketing side, the variants for carrying out foreign trade transportation are mainly concerned with combining transport economic and foreign trade economic criteria which are to be further emphasized by taking into account the commodity related choice of means of transport and routes.

The term "market related transport variant" also implies the dynamism on transport markets and other commodity markets, which may result in changes due to political, technical-technological, price and other factors.

Closely linked with the choice of the transport variant suited to the market, from the economic aspect, is the price to be calculated. This may not be the mere addition of partial prices. Indeed it must be a market-appropriate price--by contrast to conventional rate considerations. In this context we must point out the following: As we all know, as a result of the development of world market prices for energy raw materials, the level of transport and freight rates has risen substantially in the past 10 years, both in the socialist and the nonsocialist monetary area. Since the introduction of the MTT [Motor Transport Tariff] in October 1977, the transport tariffs of the socialist countries involved have risen about 4.5-fold by comparison to the ETT [Railroad Transport Tariff]. The railroad tariffs of capitalist countries are variously growing by 5-10 percent per annum.

At the same time it is important for foreign trade practice to realize that the transport prices actually paid are often well below the nominal tariff level.

Symptoms of crisis and stagnation on tramp freight markets tend to quickly result in lower freight rates. As regards (published) transport tariffs (liner shipping, the railroad, road freight traffic), transport prices are individually negotiated (depending on actual market conditions) and involve special freight rates, confidential discounts, minimum volume rebates and allowances for loss.

We therefore note an at least temporary divergence between the nominal level of rates and the actual level of transport prices--a typical phenomenon on transport markets. Transport customers are often insufficiently familiar with these divergences at the various carriers. Consequently the need arises for a

binding overall price for house-to-house shipment such as is customary for transit shipments at fixed rates and for multimodal transportation, especially by means of containers.

The lack of price transparency on transport markets affects both the export of transportation services as well as export and import shipments.

These factors decisively determine the criteria of a market appropriate price, which might be characterized as follows:

A market appropriate transport price must be

- Based on a comparable price-performance ratio,
- Current,
- Obtainable on international transport markets, and
- Capable of being realized (\*\*) on international commodity markets by way of the commodity price (8, p 199).

Special attention needs to be devoted to this issue, in particular with respect to the greatest possible conformity of GDR suppliers on international transport markets with potential foreign customers for TUL services by GDR enterprises. Market appropriate transport prices must also be offered domestic would-be buyers (domestic foreign trade enterprises). These efforts are backed by a new clearing settlement between foreign trade enterprises (AHB's) and transportation enterprises. This is based on convertible foreign exchange and should bring about the equal rating of foreign exchange earnings by the transportation enterprises.

### 3.3 Foreign Trade Forwarding Within International Forwarding

International forwarding carries out essential tasks in the realization of foreign trade transportation, in particular in the dispositive sphere and commercial dispatch. At international level also it is appreciated that, in the matter of foreign trade transportation, the quality of dispositive services is specially important by comparison to physical carriage (9, p 26). The services offered vary, depending on the definition of the forwarding enterprises as general or specialized forwarders. The range of services offered by the GDR international forwarder tends to stamp it as a general forwarder which continues to emphasize the accomplishment of tasks on behalf of GDR foreign trade, further refines itself in this direction and is institutionalized also in the form of a foreign trade forwarder within the Deutrans Combine VE.

All this clearly underscores the representation of the interests of foreign trade enterprises vis-a-vis domestic and foreign transportation, transshipment and warehousing enterprises, and the improvement of forwarding operations tends toward the following direction:

- Designing efficient transport variants on the basis of foreign trade transportation plans

- Providing favorable transport services for foreign trade enterprises and the conclusion of the corresponding AHB contracts
- Supervising important foreign trade transports
- Safeguarding the priority utilization of GDR domestic TUL capacities.

Accordingly it is imperative for the foreign trade forwarder to even better reconcile the demands of the merchandise on transportation with the potentials and demands of the transport system, endeavoring at the same time to achieve the highest possible standard of transportation services, adjusted to the respective customer order and to keep costs to a minimum. The foreign trade forwarder therefore has the priority task

a) In the preparatory stage of the transaction to give comprehensive advice to the foreign trade enterprise with regard to the best possible transport variants,

b) To resolutely make prevail vis-a-vis the transport enterprises the delivery and transportation terms agreed in the foreign trade contract and established in the forwarding order.

The foreign trade forwarder is thus not merely an agent interposed between the commodity and transportation sides. In fact it is primarily the representative of the merchandise vis-a-vis the transport enterprises. This holds true both at the conclusion of the transport contract and the entire transportation process.

Better prerequisites are thus created for helping advance the interests of foreign trade by the use of transport and forwarding markets for the sale of the merchandise. The precondition is sound knowledge of market structures and market trends. Both these are subject to changes, and the effects thereof need to be recognized in good time.

The large freight volume of the GDR's foreign trade represents at one and the same time the main field and the base of all operations which may then be organized so as to satisfy all the interests of those involved in foreign trade transportation. This can be realized by the know how of the international forwarding company with its operating facilities and network of branches, branch offices and sections at home as well as its agencies abroad. The dominant task of GDR foreign trade forwarding with respect to foreign trade transportation is that of designing the best possible methods for delivering commodities. Once these are available, it will be possible to develop concrete and practical proposals for the customer and efficiently carry out the order once it is received.

#### FOOTNOTES

- \* Revised version of a lecture given at the international conference on "Ocean Shipping Systems - Status and Prospects," held in Rostock on 3 and 4 October 1984.

- \*\* From the standpoint of the commodity markets, the price level is decided by the price-performance ratio at which the respective foreign trade partner carries out or might carry out the particular foreign trade transportation upon outside transport disposition.

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11698

CSO: 2300/426

GERMAN DEMOCRATIC REPUBLIC

LIGNITE MINING COSTS SOAR

West Berlin IWE TAGESDIENST in German No 89, 15 Jun 85 p 1

[Article datelined IWE Berlin 15 Jun 85: "Lignite Production Costs in the GDR Keep on Rising"]

[Text] In the GDR, the extraction of lignite, which is by far the most important source of energy, is gobbling up more and more money. According to data from the Freiberg Mining Academy, the effect of increasingly unfavorable geological conditions in the GDR's lignite mining "could not be compensated for" by raising the scientific-technological and economic level. Thus, the prime cost per extracted ton of raw lignite rose 89 percent, the consumption of energy 60 percent, and the capital equipment required by 85 percent in the period from 1970 to 1980. In the period up to the year 2000, production conditions will get even worse. The targeted increase in production capacity by then--24 percent over 1980--will "lead to intolerable burdens on the national economy, unless there is a decided increase in the economic effectiveness of scientific progress," the FREIBERGER RESEARCH PAMPHLETS state. From that assertion, the serial publication derives the following challenges: to increase the operating time and production demands on currently available equipment, to discharge workers, to lower energy costs and also to develop cost-reducing production technologies. The currently claimed useful life of the equipment, in particular, is neither appropriate to production conditions in mining nor to the "limited capital investment capability of the national economy," it was claimed, for the useful life is "too short."

In 1983, the GDR produced nearly 278 million tons of raw lignite. By the end of this year, annual production is supposed to rise to nearly 300 million tons. Long term planning for the year 2000 calls for around 315 million tons per year.

CSO: 2300/446

HUNGARY

POPULATION OVERMEDICATED, ARTICLES CLAIM

Budapest MAGYAR HIRLAP in Hungarian 12, 13 Jun 85

[Article by Tibor Franka and Ferenc L. Gazso: "A Cure Against Medication"]

[12 Jun 85 p 5]

[Text] Tempers Lost, 423 Million Tranquilizers Consumed

The wise Hindus believe that every person is allotted at birth a certain quantity of salt; and who consumes his salt sooner will die sooner. Dr Istvan Angeli, a Kaposvar chief physician and specialist, warns us in a study (VALOSAG, No 5, 1985) that this is how people--to retain the analogy--are "salting away" their lives and becoming sick, specifically from what has been developed to cure diseases. In Hungary the consumption of medicines has assumed epidemic proportions. We are popping pills because we only have to ask for a prescription, because pills are cheap, and because we have more confidence in the poison than in ourselves. Our two-part report investigates how and why this epidemic is spreading, and whether there is a cure for it.

Today a person is regarded as sick if he is not taking any medication. Most people feel reassured only when the Elenium, Valeriana, Quarelin and Algopirin, or the Eunoctin and Sevenaletta, are there in their purse or briefcase. The list could be continued, in accordance with each individual's personal preference. Between 50 and 60 different kinds of pills are being stocked in home medicine cabinets; they may yet come in handy for something or other. Last year the national consumption of sleeping pills alone totaled 113 million pills. In other words, three out of every 100 persons take their regular dose every evening. Or if you wish, 3 percent of the total population is living on sleeping pills.

Tranquilizers are in even greater demand. Not counting the tranquilizers sold over the counter, the total number of tranquilizer pills bought from pharmacy shelves last year was 423 million. Regardless of how absurd this may sound, the average is 40 pills per year even for infants. These few figures clearly prove that the consumption of legalized drugs (i.e., of pharmaceuticals) is

one of the basic problems of our time. This is by no means merely a health problem, but increasingly a social problem as well. Dr Angeli notes in his study: "In Hungary today, 20,000 young people are using narcotics or drugs that are substitutes for narcotics, respectively substances that can be inhaled. Aside from curiosity, the reasons are adjustment problems, anxiety and depression. Another sad statistic for 1980: Hungary has the highest suicide rate in the world. The number of deaths a year resulting from suicide per 10,000 population is 9 in Britain, 20 in the Federal Republic of Germany, 22 in Austria, but 46 (!) in Hungary."

We are entitled to be sick, and medicine is not hard to come by. If I don't feel like going to work, I get off the bus earlier, at the doctor's office. No doctor alive will dismiss my complaints outright, even though he may have his doubts. It would take him from 2 days to as much as 2 weeks to determine for certain whether I am malingering. He puts me on the sick list because that is the "safest," for both him and me. But having put me on the sick list, he has to give me some medication. For what kind of physician would he be if he were to prescribe a diet or jogging for my stomach pains?!

#### Prescription Pad at Hand

In his Kadarkut office in the Somogy hills, Dr Gyogy Szalantay, the district physician, uses Switzerland for comparison.

"There a physician sees four or five patients a day," he says. "On an average afternoon, as many as 60 drop in my office. Often there is no time for an accurate diagnosis, and the prescription pad is at hand. I clearly recognize when someone is malingering, but what am I to do? He has spent half of his workday in the waiting room; I have to excuse his absence at least that day. If I send him away, he goes straight to the megye seat to lodge a complaint. Let us talk instead about the patients who are really sick. It takes 5 days to recover from a 2-day cold. Why? I have to excuse every day of absence because employers are skeptical."

In rural areas, according to the district physician, the prescribed medicine is what makes the doctor a real physician. But not the laxative that costs merely a few pennies. The time is long past when people drank an infusion of walnut leaves to cure high blood pressure, or destroyed bacilli by sweating in bed. Home medicine cabinets in villages are no less well stocked than in cities, and this does cause problems. The Kadarkut district physician recalls the case of Uncle Paul, aged 70. "The old man had a cough, and I prescribed codeine for him. His daughter-in-law had the prescription filled at the pharmacy and put the box among the other ones at home. The old man returned two weeks later. His cough was gone, the pills were effective, he said and wanted his prescription renewed. To make sure that I gave him what he had been taking, he put an empty Ovidon card on my desk. I do not know what his daughter-in-law must have been taking all that time, instead of her birth-control pills."

And if the physician is not available? His nurse helps the regular patients, her friends, and the friends of friends. The pharmacy accross the street from Peterfy Hospital is one of the busiest pharmacies in the capital. There is

always a long queue here, and the retired persons who act as buyers for the surrounding tenement buildings are known by name. The pharmacy serves 1,400 customers a day. It has a monthly turnover of one million forints, consisting mostly of drugs costing pennies.

Mrs Zoltan Szarvas, the pharmacy's deputy manager, tells us: "A patient will have three or four different doctors prescribe the same medicine. This can lead within a few weeks to a nationwide shortage of Valeriana, or of Corinfar that could save lives. We are being blamed when our shelves are empty. And the complaint book does not solve anything in our case."

#### Annual Consumption of Sleeping Pills and Tranquilizers

	<u>Year</u>	<u>Million pills</u>
Sleeping pills	1976	96
	1981	111
	1984	113
Tranquilizers	1976	326
	1981	430
	1984	423

#### Pharmacist's Status

It is no use to deny that the pharmacist's status has declined amidst the invasion of medicines. He is still heeded to some extent in rural areas. While city residents consume mostly manufactured pharmaceutical preparations (in the various pills a person ingests the same dose of the same active ingredient, in quantities that almost make him sick), villagers are more inclined to let the pharmacist compound and dispense their medicine.

In our time the pharmacist's role has changed from skilled special consultant to sales clerk. Not that his knowledge has become outdated. Rather the pharmacies have been flooded with manufactured pills, and also doctors have more confidence in these pills.

Dr Gyorgy Harangi, the head of a main department within the Ministry of Health, says: "A young pharmacist just starting his career now earns 4,000 forints [a month]. There is no extra income. The profession has lost its appeal and is becoming a predominantly feminine one. The old close relationship among doctor, patient and pharmacist has ceased. The patient believes only his doctor and becomes offended if the pharmacist reminds him that it is unnecessary to take a bigger dose of the same medicine for a given ailment."

Doctors abroad now prescribe the active ingredient rather than the manufactured pill, and they let the pharmacist choose the most suitable dosage form, with due consideration for availability, price and--last but not least--the patient's specific conditions. Pills are readily available in our country. So why compound and dispense others? A Somogy Megye "survey" also confirms this: the consumption of tranquilizers in the megye increased by 1.3 million pills in four years. During the same period, the consumption of Dalgol drops

(they contain also alcohol) increased by 4,000 bottles in the megye. Intoxication due to "Dalgoholism" is spreading nationally as well.

In the Kaposvar out-patient clinic, Chief Physician Angeli sees us, after his diabetic patients.

"Mainly we doctors are to blame," he says. "We do not want to, and sometimes do not even dare, persuade the patient to change his way of life, instead of taking medication. Why do you think there are so few diabetics in Vietnam? Because you find only a few obese people per 10,000 population. But let us stick to Hungary. It is a proven fact that diabetics could remain healthy their entire life, without any panacea, merely by going on a diet and losing weight. Yet only 20 percent of the patients are willing to go on a diet. The prestigious physician, with a queue of private patients, is the one who does not hesitate to prescribe also expensive foreign preparations. Within a few days, the patient truly feels better. But in the meantime his body deteriorates: his liver, kidneys or stomach cannot tolerate the toxicity."

#### Not Merely a Fad

According to Dr Angeli, the liberalism in selling drugs ought to be curbed. At least 100 pharmaceutical preparations are now being sold across the counter, and it is also no great problem to get a prescription. Another Somogy Megye experience indicating the need to tighten the regulations on the sale of drugs is that the annual consumption of Daedalon--a preparation that boosts the effects of alcohol consumption but is otherwise harmless--has dropped by 200,000 pills in the megye since it has been made a prescription drug.

We must realize that self-cure has become a virtual epidemic and is not merely a fad. Its causes? The population is aging: there are nearly a million people over 70. The death rate of the population of work age is rising also: among every 1000 persons in the 35-60 age group, eight die suddenly each year. The incidences of heart diseases, mental disorders and tumors are alarmingly high. Thus there are realistic and--unfortunately--considerable grounds for the anxiety that drives even healthy people to medicines. The turnover of the 1,470 pharmacies in Hungary is growing at an annual rate of 8 to 9 percent. The level of supply is equal to that in the advanced industrial countries.

Occasionally plenty is still not enough. The ministry reports that the pharmacies are well stocked at present, but there are shortages of five preparations available for rubles, and of two preparations available for dollars. Last year, however, the shortage list of GYOGYERT [Pharmaceutical Marketing Enterprise] contained 60 to 70 items. The following is perhaps a typical example: when we visited Kaposvar, the entire city was looking for Corinfar and Valeriana. In vain.

No epidemic has yet ceased by itself. The source of the infection has to be found and eradicated. Should we change the incentive of the pharmacy enterprises? Should we curb pill popping through price increases? Indeed, where do we find the spring that will eventually swell into a stream? Read about this in tomorrow's installment.

[13 Jun 85 p 5]

[Text] Bitter Pills

Everything depends on the dose. Even an ordinary medicine can become a poison. Statistics show that in recent years we have been taking more than enough sleeping pills and tranquilizers. Yesterday, in the first installment of our report, we sought the causes of the pill-popping epidemic: pharmaceutical preparations are cheap, easy to obtain, and even doctors prefer pill therapy to the patient's thorough examination. Is there a cure for medication?

Most pharmaceuticals cost pennies, yet they add up to a substantial business. As we very well know, Hungary is a great power in both the production and consumption of pharmaceuticals. According to the data of the Central Statistical Office, we consumed 5.9 billion forints' worth of pharmaceuticals in 1983 (at producer prices), but already more than 7.0 billion forints' worth last year. This is 18.8-percent growth in one year. It must be admitted that there is a close correlation between our advanced pharmaceutical industry and high consumption of pharmaceuticals. Although propaganda discourages us--with less rather than more success--from poisoning ourselves, all this does not alter the stark interests: pharmaceuticals also earn money. It is typical that the chain entrusted with marketing operates as an enterprise system.

Dr Gyorgy Harangi, the head of a main department within the Ministry of Health, points out that the pharmacies were organized into enterprises even before nationalization.

[Question] In other words, they have an incentive to sell us what they should be discouraging us from buying?

[Harangi] The pharmacist does not get a bonus for higher turnover. The enterprises do have an incentive to increase their turnover, but I must hasten to add that they are not merchants either. They are able to sell the Kalmo-pyrin, or any other pharmaceutical preparation, only for the same price that they paid the pharmaceutical factory.

[Question] Then how are the enterprises able to support themselves?

[Harangi] To be able to show a profit, the pharmacies are getting a price subsidy from the state budget. Up to now they were getting a subsidy of 121 forints on every 100 forints of sales. As of 1 January, the subsidy has been reduced by 8 forints.

[Question] The enterprises have probably complained about the reduction. However, this has not altered the situation much. The reduction even provides an incentive for the enterprises to increase their sales of pharmaceuticals.

[Harangi] Yes, the reduction of the subsidy can be perceived also in this light.

But what is really incomprehensible is why important medicines are available only in hospitals. That the patient may take some of them only under strict medical supervision is still understandable. However, one can hardly find a reasonable answer to the question as to why a good many pharmaceutical preparations are shortage items even in the hospital wards toward the end of the year. The medicine has run out, and the hospitals either will not be getting more or cannot afford to buy more. In the opinion of experts, the main reason is that the amount of money available for hard-currency import is not enough. We are spending 1.2 billion forints a year on these expensive rarities, but even three times this amount would not be too much.

In Kaposvar, in the Golden Lion Pharmacy of long standing where the painter Rippl-Ronai once worked as an assistant, the women in white coats are suffering from headaches of a different kind.

Mrs Ferenc Szili, assistant manager: The price of the most expensive preparation in our pharmacy is around 10 forints. I once calculated that our average regular customer buys eight to ten kinds of pills, drops or ointments. Ten cards of Quarelin, for example, cost 45 forints. Is it any wonder that customers are buying it as if they were buying soup greens?

[Question] In your opinion, then, only a price increase could provide a real cure?

[Mrs Szili] Higher prices would curb excessive consumption. Of course, prices could be raised only if the truly indigent--and here I have in mind primarily the retired persons living on small pensions--would be able to obtain the most important medicines at low cost or perhaps free of charge. This certainly could be solved from the higher proceeds from sales.

The medical universities have neglected to teach its epidemiology up to now, and many doctors therefore know nothing about the mechanism by which this epidemic is spreading. According to Dr Istvan Angeli, chief physician of the Kaposvar out-patient clinic, every condition exists in Hungary for pill popping to assume truly epidemic proportions.

[Dr Angeli] The source of the epidemic is mass production. We doctors have assumed the ignominious role of carriers, because through us anyone has easy access to medicines. And there at the end of the chain is impressionable man stuffing himself with poison. And yet the antidote is so simple: we have only to eliminate the harmful environmental factors, the addictive substances in general. This "pathogen's" greatest enemy is a natural way of life.

[Question] But today a natural way of life is a luxury few people can afford. For example, it costs more to go on a diet than to take reducing pills.

[Dr Angeli] And, regrettably, there are also ingrained habits. It is difficult to persuade a 50-year-old man to eat fresh salad instead of hamburger. Schiller wrote: "Hunger and love govern the world." A person cannot starve just because he can afford to buy only cracklings.

[Question] And what about love?

[Dr Angeli] There has long been a demand for drugs to cure sexual disorders, impotence and frigidity. The results, however, are barely perceptible. A team of doctors in the United States examined nearly 1200 patients and came to the conclusion that while sexual problems were attributed in the past to psychological causes, now the side effects of drugs are causing potency disturbances in one out of every four patients.

[Question] To sum up: the population is aging, self-cure is spreading, the diagnoses often are inaccurate, drugs are cheap and easy to come by. Most people choose the more convenient solution: their diet is unhealthy and they are constantly in a hurry, not to mention their addictions. These are more or less the real causes of the epidemic.

[Dr Angeli] There is another important cause that you have omitted from your list: the example that we doctors are setting. Every second doctor smokes, especially the women. And it is likewise a fact that health workers are taking legalized drugs. It has been demonstrated, for example, that drug dependence and drug addiction are twice as common among anesthesiologists and their nurses than among the population in general.

[Question] In your opinion, would it still be possible to curb the epidemic and prevent its further spreading?

[Dr Angeli] With emphasis on the responsibility of those who prescribe drugs and who fill the prescriptions, I think that there is a solution. What we must change first of all are the environmental and social factors, and not the tranquilizer doses. So far as we doctors are concerned, we must accept the inconvenience and the initial antipathy, and prescribe pharmaceuticals for the patients only when the pharmaceuticals are warranted. Pharmacological research must establish the smallest doses that are still effective, which will help to avoid these undesirable side effects. And everyone owes it to himself to lead a normal life and to eat a balanced diet.

Without disputing Dr Angeli's recommendations, we wish to point out that only a few people are able to lead normal lives. What we have in mind is that the costs of health maintenance are rising steadily. Fat-free foods are expensive, and the leisure time we are able to devote to ourselves is even more expensive. For those starting from zero, leisure time is practically unattainable until their early old age. (International comparisons show that Hungarians work the most in Europe, or at least the longest hours.) And there are things for which there is no penicillin: adjustment problems, anxiety, fear, senility, and loneliness.

But these are already causes that go beyond the epidemic of pill popping.

The consumption of pharmaceuticals is the highest in the industrially developed countries: not only because medical science and the pharmaceutical industry are more advanced, but due also to the wider advertising of drugs. Three-fourths of the world output of pharmaceuticals is consumed in the industrially

developed, civilized countries; their populations account for one-fifth of the world population. This leaves only one-fourth of the world output for the developing and underdeveloped countries whose populations make up four-fifths of the world population and have a greater need for pharmaceuticals.

In the United States, for example, the consumption is high of both illegal drugs (narcotics) and legal drugs (pharmaceuticals), and there are differences only in the ratios of addiction to them: youths use more narcotics and take less pharmaceuticals, while the elderly use very little narcotics and take a lot of pharmaceuticals. According to the results of one survey, 4.1 percent of hospital admissions are due to the side effects of pharmaceuticals; 80 percent of these patients were admitted in a serious condition, and 5 percent died after admission. In the Federal Republic of Germany, the West German Pharmaceutical Commission in Koln reported drug dependence in 11.7 percent of the persons on pharmaceuticals. In Switzerland, roughly 40 percent of the deaths due to poisoning were caused by pharmaceuticals; in most of these cases the victim took two or more pharmaceuticals, or he mixed a pharmaceutical with alcohol.

1014

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HUNGARY

# EXISTENCE, INCOME FROM PRIVATE PLOTS DEFENDED

Budapest MAGYAR HIRLAP in Hungarian 26 Apr 85 p 5

[Article by Ildiko Bedo: "Private Plot"]

[Text] The private plot is a concept. It has matured into that in the course of arguments aimed at improving matters, throughout years, and by today it yields, as a profitable branch of agriculture, more than one quarter of our domestic food production.

Yet even today one can frequently encounter aversion and reluctance whenever the conversation turns to it. It is too strongly bound to a certain place, even to a certain life-style and therefore many people think that all citizens of the state do not have equal opportunity to exploit this possibility of income complementing.

Peasants?

Even if not everybody, half of the population does have this opportunity. According to statistics 50 percent of the active breadwinners live in the countryside or, rather, in the areas of attraction of the larger settlements, in houses with a garden, close to the soil. Many people are bound to such homes through their family ties. Let us just think of the "shuttlers," since 40 percent of the laborers working in industry commute to the factory from the countryside, turning around once a day or once a week between their residences and working places. As to their place in the social structure these people belong to the workers's class--numerically they constitute almost half of it--but the scene of their private lives, their residential surroundings enable them to complement their incomes through the possibilities of a life-style originating in agriculture.

Many white-collar workers and employees are also in this same fortunate situation. But, of course, those people whose primary occupation is also in agriculture can make the most of all the possibilities. They are not hindered by roads, time or distances from exploiting the possibilities hidden in small farming. They are the ones who profitably use the tangible objects of the traditional peasant life-style like sties, stables and sheds. They change into forints the "garbage work-force" around the house by using foil-tents, orchards or vineyards. As our age requires, with the help of the cooperative farm background, they fit all this into the large-scale activity of industrialized agriculture.

There are not many of them. About 20 percent of our country's active bread-winners work in agriculture. About 14 percent of these work as manual laborers in one of the basic activities. As to their place in the social structure, they are the peasant stratum of our day. They give the lion's share of the products of private plots and small farms and receive its honorable profit, certainly more than others receive. With this work they can increase their personal income by so much as 24 percent a year, as against the 8 percent of factory workers or the 15 percent of the so-called "mixed-income" families. Would therefore the per capita personal income of the peasantry, precisely because of small farming that it can exploit the easiest, be far higher than that of others? The various statistical surveys show that it is not.

### Hourly Wage

Recently a remarkable essay was published, written by two fellows--Gyula Varga and Maria Guba--from the Research Institute for Agricultural Economy. They analyze how the peasants' income conditions change within the present coordinates? According to their findings concerning the entire people's economy the annual income of a working person is, on the average, 75,000 forints, but in the agricultural cooperatives the personal per capita income is only 50,000 forints. Which approximately means that, without a supplement to the income, the monthly per capita average earning of a peasant is four thousand plus a few hundred forints. If these people want to supplement this sum and approximate it to the level of the national earnings average, then for them the only possible source of income is the attainable and handy "second farm," the private plot--with its many facets.

Which, of course, does not bring in the profits easily, here the length of working time is rarely in proportion to the earnings. Many people know that keeping animals and growing vegetables and fruit on a small scale, around the house, also requires a lot of work and frequently ties down entire families from dawn to dusk. But fewer people are aware of the fact that the peasants also work in their primary working time 16 percent more--for 20 percent lower hourly wages--than workers in any other branch of the people's economy. The reason for this, besides innumerable economic factors, is also the fact that they work with animals and plants, and here working time varies. It is not easy to calculate the hourly wage. Just think what a penetrating economic analysis would be necessary for even a single working activity of the operation of small farms--say, the planting of seedlings, pruning, preparing litters, foraging--if we wanted to calculate how much energy, expertise and time is spent on these by the farmer on each occasion; sometimes by the entire family--possibly by a family the work of whose members around the house is unequal both as to value and to extent. Social mobility, a good thing in itself, has indeed transformed the traditional peasant family structure, too. Thus, it is practically impossible to establish how great a part of home farming is being shouldered by, say, the student son, the teacher wife, the daughter working in trade or the white-collar worker, perhaps retired member of the family. Only so much appears certain from the statistics that some rural families are taking upon themselves 20-30 additional working hours each person per week to increase personal income.

Necessary!

This form of income supplementing is a possibility connected with a certain life-style, kind of residence or place, and it is necessary to exploit it. It is necessary for the individual person, because for most of the people involved this is the only real possibility to increase their income. And it is necessary for the community, because this mode of production fills a gap and satisfies demands in producing certain food articles. And even if it indisputably has burdens, those burdens grow out of its peculiar, local circumstances and are shouldered by everybody working on a small farm, whatever social class he belongs to.

12772

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HUNGARY

BRIEFS

SEED CORN BREEDING COOPERATION--An international conference on seed corn breeding has begun at Martonvasar, at the Agricultural Research Institute of the Hungarian Academy of Sciences. Participants include specialists from Bulgaria, Czechoslovakia, Yugoslavia, Poland, Hungary and the USSR. The international cooperation in this field began 4 years ago and has since been joined by the GDR and Romania. The goal is to jointly improve and propagate corn hybrids which are high-yield, as well as suited to the climate and soil of the region in which they are to be grown. The joint work has already resulted in several new varieties. The cooperating countries produce 43,000-44,000 tons of such seed annually. [Budapest NEPSZABADSAG in Hungarian 27 Jun 85 p 5]

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POLAND

## POLAND'S ECONOMIC DEVELOPMENT TO 1990

Warsaw ZYCIE GOSPODARCZE in Polish No 14, 7 Apr 85 p 6

[Article by Wieslaw Juszcak and Wladyslaw Welfe: "Poland's Economic Development To 1990--A Projection"]

[Text] This forecast of Poland's economic development in 1985-1990, a successive study of Lodz University's Institute of Econometrics and Statistics, has been compiled on the basis of findings of a simulation conducted according to the econometric model of the functioning of the national economy W7-82, designed this year. The parameters of the model have been estimated with the use of statistical data covering the period up to 1982 (starting from 1961), which has made it possible to extend the projection to 1990. As such it may serve as a comparative base for simulation analyses of the effects of various economic policy options in the coming five-year plan period 1986-1990.

### Assumptions of the Projection

The assumptions of the present projection, compared to the one presented in March 1984 (ZYCIE GOSPODARCZE 17-84), are only slightly changed. They take into account the economic results of 1983 and the Central Statistical Office (GUS) reports on national economic performance in the first three quarters of 1984. Also, some targets of the July [1984] draft of the Central Annual Plan (CAP) for 1985 have been instrumental in forecasting this year's developments. The basic assumptions of the forecast are presented in Table 1.

1. In the field of foreign trade, it has been assumed that the trade surplus with nonsocialist countries will still be needed, although at a lower level than the amount of interest payments on foreign debt falling due in the coming years (from US\$1.4 billion in 1985 to \$1.7 billion in 1990). We have proceeded from an assumption that with the present ratio of interest rate to US dollar inflation rate, a drive for a higher surplus should be postponed. The more so as an increase in imports from countries of payments zone II [settlements in convertible currencies] will be a major condition for the continuation of many welcome development trends seen at present. An increased trade surplus with these countries would affect shipments of raw and intermediate materials for domestic production and, in addition, would stop the renewed process of replacing the less efficient imports from payments zone I [settlements in nonconvertible currencies] with purchases from payments zone II.

Table 1

## Basic Assumptions of the Projection

Categories	1985	1986	1987	1988	1989	1990
Growth-rate of net investment spending (%)	7.0	7.0	7.0	7.0	7.0	7.0
Pattern of investment spending (%)						
Productive sphere* of which:	58.6	58.7	58.8	58.9	59.0	59.1
- fuels/energy sector	11.6	11.9	12.3	12.6	12.9	13.2
- agriculture and food processing	22.9	23.7	24.3	25.0	25.7	26.4
Municipal and housing sector	33.6	33.5	33.4	33.3	33.2	33.2
Trade balance (in billion US\$)						
Socialist countries	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2
Nonsocialist countries	1.4	1.5	1.5	1.6	1.7	1.7
Share of imports of SITC24** group products in overall imports (%)						
Socialist countries	10.1	10.2	10.3	10.3	10.4	10.5
Nonsocialist countries	11.9	12.2	12.5	12.8	13.0	13.3
Growth-rate of foreign-trade prices in Z1						
Exports to socialist countries	9.8	9.3	8.5	7.8	6.7	6.3
Exports to nonsocialist countries	13.1	14.3	14.4	14.9	14.4	13.9
Imports from socialist countries	12.1	10.1	9.0	7.9	5.8	5.8
Imports from nonsocialist countries	15.2	14.8	14.3	13.8	13.3	12.8

\* This category covers industry, construction, agriculture, forestry, distribution and transport/communications.

\*\* This group includes selected products in accordance with the international classification.

In respect to socialist countries, our assumption is that the trade deficit, standing in terms of US dollars at \$1.2 billion, will continue. This amount is necessary to cover the differences that have emerged as a result of terms of trade which are now unfavorable to Poland.

Similarly as in the previous forecast, we assume a continuation of a policy of import restructuring, as reflected in greater emphasis on the purchases of raw materials and industrial products.

2. In the field of investment, we have assumed that the net spending should grow at a rate of 7 percent a year. The choice of an adequate growth-rate seems to be a major element determining economic developments in the period under discussion. Despite the substantial increase in the past two years, the level of capital spending is still too low, considering the economy's requirements for modernization, automation, robotization, and restructuring. And as shown by the experience of the past two years, changes in the level of investment have got out of control, obstructing a rational course of investment processes. As a result, the amount of capital tied up in projects underway has gone up. The "statistical" growth of national income, coming as a result of uncontrolled growth of investments, gives rise to an illusory impression of economic recovery.

In setting the rate of investments, one should realize the potential drawbacks of too rapid growth, among them:

- \* higher consumption of raw and intermediate materials for investment purposes, which restricts the development opportunities of other sectors;
- \* disincentives to growth of consumer and export production in the engineering industry, offered by easy sales of capital goods;
- \* wage growth not covered by corresponding consumer market deliveries;
- \* increased amount of tied up capital, which in coming years will necessitate an increase in the share of resources earmarked just for the purpose of preventing disinvestment in projects underway.

Remembering about all this, it seems that the assumed growth-rate of investment spending permits a necessary scope of economic restructuring and an adequate growth of productive potential, while at the same time allowing for the neutralization of adverse developments that may come as a result of earmarking a growing share of national income for investment purposes. But it is a necessary condition that firm measures be taken--as assumed in the projection--with a view to shortening the course of investment processes.

A rational investment policy is all the more necessary as the emphasis on the fuels/energy complex (long gestation) and the food-producing complex (as a rule, new projects) will perforce lead to a temporary growth of tied-up capital.

3. In the field of prices and wages, we assume a continuation in the whole period under review of the policy of suppressing the price and wage growth, and of the main directions of this policy--which means that the passing of production-supply price growth unto the retail prices will be restricted, changes in the exchange-rate of the zloty will be slowed down (especially in trade with socialist countries), and that the increases in labor productivity and costs of living will not be fully compensated by a commensurate increase in real wages.

In compiling the projection, we have also assumed that no major price increases will be announced for alcoholic beverages. This is expected to increase their consumption through the socialist distribution network, and to help stabilize the market for sugar and confectionery.

#### Forecasting the Course of Economic Processes

The projection reflects the authors' conviction that even with the existing and expected constraints it is possible to pursue a policy which would guarantee moderate yet stable rate of economic growth. For this reason, some aspects--especially as regards 1985--are viewed with greater optimism as compared with our March 1984 forecast and with the CAP for this year.

The principal factors of growth are presented in Table 2.

Discussions on barriers to growth focus on insufficient expansion of modern productive potential, labor shortages, and scarcity of raw and intermediate materials--both domestic and imported. But it seems that the decisive influence upon the course of economic growth in 1985-1990 will be exerted by foreign trade. This, naturally, should not be taken to mean that concentration on that field alone will suffice to automatically generate a desired growth-rate.

1. The projection shows that, with the adopted assumptions, the investment spending will grow at an annual rate of 6.1 percent. In the preferred branches of the economy, the pace will be much faster--8.6 percent in fuels and energy (63.8 percent in the discussed period of six years), and as much as 11.3 percent in the food industry (90.2 percent in 1985-1990).

With the 6-plus percent growth of investment spending, one can expect a substantial 2.3 percent annual growth of the productive potential throughout the whole 1985-1990 period. As already mentioned, the condition is that the amount of tied-up capital is reduced. It would be hard to name conditions under which a faster growth of productive potential can be achieved. A higher growth-rate of investment spending--possible only in 1-2 years--would rather worsen the overall economic situation, render more difficult the tidying up of investment processes, and, consequently, slow the growth of potential, thus boosting the amount of tied-up capital. But with capacity utilization still far from full, the size of productive potential is unlikely to provide a major constraint.

Table 2

Principal Factors of Economic Growth  
(annual growth-rates, in percent, constant prices of 1982)

Category	1985	1986	1987	1988	1989	1990	1990 1985 = 100
			previous year = 100 [growth-rate]				
Investment Spending of which:	5.7	6.0	6.1	6.2	6.3	6.4	135.3
- in the productive sphere*	5.9	6.2	6.3	6.4	6.5	6.5	136.5
- of which: in industry	5.9	6.2	6.3	6.4	6.5	6.5	136.5
Fixed assets of which:	1.7	2.0	2.2	2.5	2.7	2.9	112.6
- productive assets*	1.4	1.8	2.1	2.4	2.7	2.9	111.9
- of which: industrial assets	2.0	2.4	2.7	2.9	3.2	3.5	114.9
Employment in the socialized sector of the economy of which:	0.6	0.5	0.2	0.3	0.3	0.4	102.0
- in the productive sphere*	0.2	0.1	0.0	0.0	0.0	0.0	100.1
- of which: in industry	0.2	0.2	0.0	0.0	0.1	0.1	100.6
Imports, total of which:	6.0	5.5	5.6	6.1	6.9	6.2	134.6
- from socialist countries	6.2	5.6	5.4	5.6	6.6	5.7	132.9
- from nonsocialist countries	4.1	5.4	5.8	7.0	7.3	7.0	137.3
- imports of SITC24 group products**	7.0	7.0	7.1	7.7	8.4	7.8	144.5

\* This category covers industry, construction, agriculture, forestry, distribution, and transport/communications.

\*\* This group includes selected products in accordance with the international classification.

2. It is expected that the years 1985-1990 will see only a small increase in socialized-sector employment--by 2.7 percent, or 0.4 percent per annum. This growth will be entirely absorbed by the nonproductive sphere, where the figure is to go up by 9.5 percent, or 2.4 percent a year. In the productive sphere, the workforce numbers will stay virtually unchanged throughout the whole period. Wage incentives are likely to bring about a tangible increase only in the fuels/energy industry (7.9 percent in six years), to be coupled with a slight decline in other branches of the productive sphere.

In the socialist sector of the economy, a smaller-than-projected workforce growth and even an absolute decline, may be the case. But no higher-than-projected growth should be expected. The major barrier to economic activation of potential workforce, and especially women, is the poor attractiveness of wages as compared with social benefits which are expanded beyond means. Nor is employment in the socialized sector encouraged by the failure to fully compensate for increased intensity of work with a commensurate increase in real wages. But it should be noted that, even without a numerical growth, labor might become an active factor of economic growth if it only were used in a more rational way than so far.

3. In foreign trade, with the assumed trade balance and pace of price changes, the forecast is for 1985 growth of exports to socialist countries by 9.6 percent and to nonsocialist countries by 6.7 percent. In 1986-1990, the respective annual growth rates will be 6.8 percent and 4.8 percent, generating in the five-year period a 39.3 percent increase in sales to payments zone I and a 25.9 percent growth of exports to payments zone II.

The projected growth of imports in 1985 is put at 6.2 percent from socialist countries, and 4.1 percent from nonsocialist countries. In 1986-1990, the respective annual growth-rates will be 5.9 percent and 6.6 percent (32.9 percent and 37.3 percent for the whole five-year period).

We see the major chance for attaining these indices in activating the engineering exports which throughout the discussed period should grow at the highest rate [compared to other product groups]. A higher growth-rate, for both exports and imports, is possible on condition of quicker pace of overall economic development. But for this pace to be speeded up, it seems imperative that the surplus in trade with nonsocialist countries should be temporarily abandoned.

The biggest danger to the attainment of the projected growth of trade comes from the high dynamics of capital spending, which has the effect of both preventing sufficient cuts in imports for investment purposes and reducing the supply of capital goods for export.

4. As a result of changes in the amount of production factors, the growth of national income in 1985 is forecast at 4.2 percent, or more than provided for in the March 1984 projection (3.9 percent) and in the draft plan (3.0-3.5 percent). In 1986-1990, the average annual rate of national income growth is put at 3.8 percent, producing a 20.5 percent growth for the whole five-year

period. The condition is that the favorable trends in agriculture and the engineering industry continue, in step with the reorientation of the latter towards consumer-market and export production.

Next to an unreoriented engineering sector, the biggest danger to the attainment of projected national-income growth, as presented in Table 3 should be expected from further increase in tied-up capital (with the consequent insufficient growth of modern productive potential) and from insufficient rationalization of employment. Chances for quicker economic growth may be offered by higher degree of economic activeness of the population, which would require major changes in the policy of wages and prices, or by increase in imports from both payments zones, which in turn is contingent on new foreign credits, at least in the initial period of two to three years.

Hopes for a substantial acceleration of the growth rate of national income might be placed with the reduction of material resources consumption. In our forecast, we do not share these hopes, assuming that throughout the whole period under discussion the national income will grow at a lower pace than the gross production ["produkeja globalna"]. This is tantamount to a growth of material costs, and consequently a growth of unit consumption of material resources. Next to the necessity of using substitute materials (because of insufficient supply, as compared with the pursued rate of growth), we trace the growth of material-resources input to the currently pursued policy of material-resources economies. The exclusive emphasis on reduced consumption of centrally-distributed materials indeed results in downward consumption trends, but such economies are more than offset by increased consumption of "unrationed" materials. In the past three years, the growth-rate of gross production was invariably higher than that of national income. In this context, it is appropriate to issue a warning that a further serious increase in the consumption of those raw and intermediate materials whose shortage is for the time being not so much acute may contribute in future to a slowdown in the rate of economic growth.

5. The situation in agriculture will constitute an important element of economic growth in 1985-1990. Speaking generally, our present forecast presents a brighter picture of this sector as compared with our previous projection. We also assume that there will be no natural calamities in the discussed period, and that more favorable conditions will be provided for the development of private farming. Hopes for the realization of the latter assumption are connected with the announced establishment of the [church-sponsored] Agricultural Foundation.

While it is true that our history has never seen a six-year period with a systematic annual growth of farm output by 2.0-2.4 percent, the overall growth of around 15 percent in 1985-1990 seems feasible, if one remembers that this would represent only a slight increase on the record-high level of 1978.

6. If the expectations concerning production growth and changes in its distribution in the discussed period are met, the deliveries to the consumer market will increase by 3.9 percent in 1985, and by an average annual rate of 4.6 percent in 1986-1990, or by 25.1 percent in the five-year period.

Table 3

National Income Generation and Distribution  
(annual growth rates, constant prices of 1982)

Category	1985 previous year = 100 [growth-rate]	1986	1987	1988	1989	1990 1985 = 100	1990
Gross production of which:	4.3	3.8	3.9	4.2	4.5	4.3	122.6
- industry	4.4	4.4	4.5	4.7	5.1	4.7	126.0
- agriculture	2.9	2.4	2.5	2.7	3.0	3.1	114.9
National income produced of which:	4.2	3.5	3.6	3.8	4.3	3.7	120.5
- industry	4.0	4.8	4.9	5.0	5.5	4.4	127.5
- agriculture	4.9	1.8	1.7	1.7	1.9	1.8	109.5
National income distributed of which:	3.7	3.4	3.6	3.9	4.4	3.8	120.8
- private consumption	2.7	2.5	2.8	3.0	3.7	3.0	116.3
- public consumption	5.1	1.8	2.0	2.3	3.0	2.4	112.3
- net investment spending	7.0	7.0	7.0	7.0	7.0	7.0	140.3
- growth of inventories and reserves	6.2	3.1	3.2	4.4	4.9	1.6	118.6

Given that a growing proportion of these deliveries will be in the form of nonconsumer goods and that they will also meet the requirements of users other than consumers, and taking into account the needs connected with inventories rebuilding, the projected growth of consumption is put at 2.7 percent in 1985, or more than twice as high as provided for in the draft CAP. In 1986-1990, the consumption of material goods will grow at an annual rate of 2.9 percent, resulting in a 16.3 percent increase for the five-year period.

We see the chances for attaining the projected growth of consumption in the increased supply of nonfood articles. A still higher growth of consumption would require an increase in the supply of foodstuffs, and this does not necessarily have to come as a result of increased farm output. The food supply might be enhanced perceptibly if only a portion of reserves connected with poor storage and processing were tapped.

Dangers to the attainment of the projected level of consumption may come from the ready mentioned problems with rationality of investment processes and from poor effects of restructuring schemes in individual industries, aimed at switching them towards consumer-market production.

7. In the field of incomes and prices, the projected 1985 growth-rates are put at 16.3 percent for the population's incomes, 13.8 percent for the prices of material goods, and 14.8 percent for the costs of living. This will produce a 1.8 percent growth of real incomes. All of the growth-rates presented in this forecast (with the exception of real incomes) are lower than those in the March projection. At that time, we did not expect that measures aimed at suppressing the growth of prices, and especially of contractual prices, would be taken on such a large scale. Still, these rates are higher than the draft-CAP targets--by 3 points in incomes, by 4 points in prices, and by nearly 5 points in costs of living. But the method of computing the price-growth and costs-of-living indices adopted by central planners is so much controversial that we are not going, at this moment, to discuss the essence of differences between the draft CAP targets and our figures.

In 1986-1990, we expect a steady slowdown in the rate of inflation, and, as a result, the lowering of growth-rates of all of the discussed categories--down to 5-7 percent in 1990. The combined growth in the period will be 47.0 percent for incomes, 30.5 percent for prices of material goods, and 30.2 percent for costs of living. After excluding the consumption of alcohol, the last two figures will be higher by around 8 points.

The factors that may change the inflation rate, upwards or downwards are many. Among the most important of them, we see the principles of social benefits policy, to be adopted for the latter half of the 1980's, and the possible major changes in the pattern of production costs. A big unknown are the farmer incomes, highly dependent on harvests.

The results of the projection indicate that despite the expected reduction of inflation below an annual rate of 5 percent, the consumer market situation will still be unbalanced. Towards the end of the 1980's, the annual growth of

Table 4 Basic Indicators Describing the Consumer Market Situation

Category	1985	1986	1987	1988	1989	1990	1990 1985 = 100
Average wage							
- in thousand Zl	19.1	21.0	22.3	23.6	24.7	26.1	
- in percent*	16.1	9.6	6.4	5.8	4.7	5.6	135.8
Personal incomes							
- in million Zl	6,260.6	6,899.0	7,464.0	7,962.3	8,548.5	9,233.2	
- in percent*	16.3	10.1	8.1	6.6	7.3	8.0	147.0
Disposable fund							
- in million Zl	5,786.9	6,393.9	6,862.8	7,317.9	7,751.7	8,259.0	
- in percent*	16.9	10.4	7.3	6.6	5.9	6.5	142.4
Deliveries to the consumer market (in percent*)	3.9	4.1	4.2	4.4	5.2	4.7	125.1
Consumption financed from personal incomes							
- in percent*	2.7	2.5	2.8	3.0	3.7	3.0	116.3
- of which: food supplied by socialized units*	2.3	1.4	1.7	2.3	3.1	2.9	112.2
Growth of the population's money reserves							
- in million Zl	284.4	261.0	267.1	191.4	174.1	174.8	-
- in percent*	18.5	-8.2	2.3	-28.3	-28.3	0.4	61.5
Costs of living index (in percent*)	14.8	8.2	5.2	4.8	3.8	4.8	130.2
- of which: excluding alcoholic beverages consumption (in percent*)	16.7	10.2	6.8	6.0	5.0	6.1	139.0
Real incomes (in percent*)	1.8	1.5	2.6	1.5	3.2	2.8	112.1

\* Annual growth-rates, constant prices of 1982

the population's money reserves [cash + savings] will run at Zl 175 billion, and the sum of accumulated unspent incomes will reach Zl 3.5 trillion. The growth of real incomes will thus be, in a large measure, more apparent than real. We believe that in conditions of not-too-fast real consumption growth it would be appropriate to reconsider the correctness of the policy of suppressing the growth of prices and incomes.

The consumer-market characteristics are presented in Table 4.

This article presents forecasts on only the most important economic categories. Detailed findings concerning the potential growth paths for some five hundred elements of the economic situation are available in the form of computer prints from the Institute of Econometrics and Statistics of Lodz University. The alternative paths of overall economic development, barely sketched in this article, are now being delineated in greater detail with the help of numerical data. The results will be published in a separate paper.

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POLAND

## CONTROVERSY OVER 'NOT' VIEWS ON ECONOMIC REFORM CONTINUE

### Critique of Latest NOT Proposals

Warsaw ZYCIE GOSPODARCZE in Polish No 21, 26 May 85 p 9

[Article by Prof Stefan Marciniak, director, Interdepartmental Institute of Economic and Social Sciences, Warsaw Polytechnic University: "Doubts and Controversies"]

[Text] The NOT [Chief Technical Organization] Supreme Council expressed its position on the issue of the development of state technical and economic policy in "The NOT Engineering Forecast for the Next 15 Years." The study, whose final version was edited by Prof A. Wislicki, dr hab of engineering, points out the directions of desired changes in the economy and in technology, recognizes that the Planning Commission prepares quantified future projections and "... outlines a future economic model that, in the opinion of the engineering community, will enable the attainment of fundamental social goals." It indicates major social goals, the basic means of their implementation and implementational levels.

Among the major causes and manifestations of the crisis, the author includes external determinants (the strains caused by debt servicing and Western sanctions).

While it is necessary to take issue with several specific assessments, that is not the task of this article. Therefore, I follow with only a few basic remarks:

In the first place, it is not external determinants that led to the socio-economic crisis in Poland. The causes lie in our economy; they are related to our faulty economic structure and a planning and management system that is insufficient to the needs of effective development.

In the second place, claims regarding the lack of raw materials and manpower are associated with the relicts of thinking in categories of extensive development.

In its other sections, the "Forecast" discusses the potential of the Polish national economy and the most important issue of the entire study--a future model of the economy. The achievement of the attributes proposed by Prof A. Wislicki requires the right approaches: "From the economic point of view

they are as important as the model itself." The shift from the "old model" of former practice to the model of the future is shown graphically in the table.

#### Directions of Change

My remarks affect primarily three areas covered by the given study, namely: the directions of "... desired changes in the economy, in industry and in technology that should contribute to our emergence from the current crisis over the long term and should serve as a foundation for further economic development; a future economic model that will enable "the attainment of fundamental social goals, in the opinion of the engineering community"; and the role of technological progress in Poland.

My doubts concern: the impreciseness of the strategy of economic development in general and of industry in particular; the proposed array and order of preferred sectors and subsectors of the national economy; the underestimation of the role of science and technical progress in Poland's socioeconomic development through the year 2000. Moreover, the forecast also has the obvious shortcoming of failing to draw conclusions from the data cited in the study and from its demographic projections for Poland through the year 2000.

The "Forecast" proposes that development be based upon "... selectively chosen, comprehensively organized subbranches and products, and not privileged enterprises." Undoubtedly, this statement is supposed to serve as an answer to the criticism of the first version of the forecast (from December 1984) that proposed continuing the "harmonious" development of the economy. However, the concept as presented is too generalized. Moreover, it is inconsistent with the forecast's extensive list of preferred sectors and subsectors (to which I shall return later in the article) that embraces agriculture, forestry, construction, the fuels-power industry, the electrical engineering industry, the chemicals industry, the food industry and transportation and communications. Thus, except for light industry, the printing industry and some services, it encompasses all fields of our economy.

Like every other state of small or average size, our country is not in a position to ensure the highest level adequate for products manufactured by specialized producers in all fields simultaneously. As reported recently in TRYBUNA LUDU (2 January 1985), as a result of the policy of "harmonious" development in effect until now, in the electrical engineering industry, we have been producing about 40 percent of the entire worldwide assortment of machinery and equipment. It follows from this, however, that there where the world went into specialization and international coproduction long ago, we are attempting to produce as much as possible at home and for ourselves. This is the least effective variant of economic growth. Autarkic development in a small country does not ensure the attainment of optimum production series (volume of manufactured goods) or the lowest per-unit production costs.

At the same time, we must realize that only selective development can ensure the relatively rapid emergence of the economy from the crisis and its entry upon the path of technological progress. It is known that the decline in the rate of economic growth at the end of the 1970's (and until 1983-1984)

was brought about primarily by the overly broad front of development (this is not only true of Poland). Meanwhile, the high rate of economic growth and foreign trade of Japan, South Korea, Singapore, Malaysia, Thailand and others was caused by the right choice of directions of development of the subsectors of industrial production, i.e., correct selection.

I listed the directions of industry that should be developed in Poland in ZYCIE GOSPODARCZE (No 16, 9 May 1982), in an article entitled "Structure Above All." The elimination of existing disproportions should not be viewed as inconsistent with the advisability of choosing preferred, leading directions of development (microelectronics, the automatics and precision equipment industry, the low-tonnage chemicals industry, some services and the like). It does not mean the elimination of existing subsectors or the facilitation of different growth rates of their development.

Nor does it mean the capital replacement of all fixed assets, but the selective replacement of that equipment that is representative of the level of technical and technological advancement that fulfills the conditions of effective production economically, is up-to-date and does not endanger the natural environment.

Thus, an alternative to "harmonious" development is the selection of leading subsectors, subbranches and assortment groups that should function as leading elements in the development of the entire economy. In the dialectical and not the metaphysical view of reality (where all problems are viewed individually), selective development does not have to lead to economic disproportions. However, the economy must be viewed as a system of communicating vessels and not a system of elements that are independent of one another. The structure of the entire system must be created and regulated today, through the adaptation of the two criteria for choosing directions of development (besides the obviously primary social criterion of aiming to meet society's needs) to the specific conditions of Poland in the mid-1980's. These two criteria are the increase in management efficiency in Poland and in foreign trade and the increase in protection of the natural environment and in the potential for its reclamation.

At the same time, the practical application of these criteria should become the primary means for implementing the priority goals of the socialist society, i.e., the increased satisfaction of consumer needs. We must be fully aware that, if we put aside the unrealistic variants of the aid of Western countries that are "friendly" to the Polish nation and waiting for some other miraculous solution, an increase in management efficiency is the only path that will enable the permanent improvement of the socioeconomic situation in Poland.

The "Engineering Forecast" is absolutely correct in its consideration of the second criterion. At the same time, it is noted that its utilization in the selection process (for example, technological solutions) should serve not only a passive role but should lead to an increase in management efficiency (for example, through the use of no-waste and low-waste technologies or the increase use of postproduction waste). On the other hand,

the observation that an increase in management efficiency is dependent upon changes in the subbranch-assortment structure of production is not made. Nor is the need to change the structure of the technologies used in Poland given sufficient emphasis.

With regard to the second major shortcoming of the "Forecast," the underestimation of the role of technological progress, the authors of the study do not perceive the need to effect a radical increase in the rate of the mechanization and automation of production processes. Even the variant that implements 1,000 computerized systems for running major facilities by 1995 is not radical enough in the context of the projected structure of demographic resources. On the other hand, the proposal for maintaining the rate of automation from the 1970's (data from part II of the "NOT Engineering Forecast" that is not included in the final version from March 1985) is nothing more than a repetition of the mistaken ideas of extensive development through employment growth and the blundering policy of technical progress that rules out more radical solutions representing a higher level of technology.

In general, the problem of robotics is underplayed in the "Forecast." This is not merely a problem related to the attempt to gain control of interim difficulties, the shortage of manpower in 1985, but also a problem associated with the need to replace manpower with robots everywhere that this is necessitated by work safety and onerousness and wherever multishift work is necessary (a problem that is difficult to resolve in a positive way without robots).

Similarly, the development of services that, as is known, play a vital role in the growth of modern day civilizations, is completely ignored in the "Forecast."

#### Technological Progress

It would seem that the engineering community, of all people, should present in its "Forecast" a comprehensive assessment of past policy in the area of technological development and progress and a proposal for fundamental changes in this area in its discussion of technological and economic policy. The changes are necessary, since technical progress to date in Poland is the weakest link of all of postwar economic development. Meanwhile, this is not included in the "Forecast."

I call technical progress those changes in engineering, technology and manufactured products that will lead to increased production efficiency. Today, ecological criteria should be added to the criteria of production efficiency. The minimum requirement should be not to worsen ecological conditions through changes in engineering.

Unfortunately, it must be said that the policy of engineering progress during the entire postwar period did not promote technical changes the implemented the criteria listed previously. This policy in Poland was tied in closely with the economic policy of Poland that, as is known, determined two groups of factors during that period: 1) the creation of conditions for full

employment and 2) the shortage of capital spending funds to implement the large number of socioeconomic tasks that were initiated.

The aim to implement the task of full employment and the need to rebuild and expand the economy (following wartime destruction and hereditary backwardness) led to the choice of the variant of duplicating techniques already in use to ensure jobs for the largest possible number of people.

Growth in labor productivity was adopted as the criterion for economic progress. At the same time, this was the criterion of the economic verification of technical progress. Formally, technical progress was considered to be those changes in engineering that would lead to the growth of labor productivity. In practice, however, considerably more liberal criteria were often used (nearly every change in engineering, technology and products was called technical progress). The implementation of this variant of technical progress was initiated in 1950-1955 and it was duplicated basically unchanged during the next multiyear plans.

The need to eliminate inherited unemployment and then to ensure jobs for the postwar population explosion (and the other population booms that followed) defined the priorities of the economic policy of People's Poland and, in turn, the priorities of the policy of technical progress. Given the permanent manpower surplus in Poland and the relatively low cost of manpower, it made no sense to force the mechanization and automation of production or labor-saving technical progress in general.

At the same time, the existing mechanism of operation of the national economy (profit calculated in relation to processing costs) led to the excessive consumption of raw and other materials and power. In conjunction with the policy of low wages and the often occurring phenomenon of instability on many markets, a system of anti-incentives to technical progress arose. Under these conditions, enterprises were not (and are not?) interested in radical technical progress. At most, they are interested in rationalization-type improvements that often lead to a reduction in production quality.

Today, under the reform, the vast majority of enterprises continue to prefer the implementation of current goals over long-term goals, minor technical changes over major ones. The implementation of fundamental technical changes meets with resistance on the part of enterprise workforces and managers due to the risk involved, organizational difficulties and the lack of economic incentives. In response to a question from a poll directed towards members of the managerial staffs of enterprises: At the present time (in 1984), what impedes technical progress? ("Long-term Enterprise Goals and Conditions for Their Implementation," a contracted study implemented at INES-PW [Institute of Economic and Social Sciences, Warsaw Polytechnic University] for IGN [Institute of the National Economy]) under my direction, it is an interesting novelty that one-fifth of those polled gave the "Lack of economic mechanisms compelling innovation." In my opinion, this is also the primary reason for the lack of technical progress in our national economy during the entire postwar period. (The largest number of subjects answered in the following way: the shortage of materials, subassemblies and apparatus (35 percent),

the lack of mechanisms compelling innovation (22 percent), the lack of an enterprise B+R [Research and Development] unit (16 percent) and the lack of funds to make domestic purchases and to conduct research (10 percent).

The lack of original inventions is not a major cause; although in this regard as well, the policy of technical progress has not created conditions that stimulate such activity. In the technologically most advanced countries of the modern day world, the number of patented inventions averages 40 to 80 per 100,000 inhabitants, while in Poland this number peaked at 19.6 (in 1975).

I agree with the authors of the "Engineering Forecast" that it is not enough to make changes in the sphere of regulation in order to ensure technical progress and effective development. The very reform of the planning and management system cannot guarantee the desired structural changes. It is necessary to prepare and implement consistently a central program of structural changes as an integral part of the future projection. Radical structural changes in our economy are an indispensable condition for the development of an economic mechanism compelling the implementation of labor-saving and materials-saving technical progress. This requires changing the assumptions of the strategy of economic development, reshaping the proportions of employment and production and modernizing management goals.

It is also necessary to make changes in the policy of technical progress. Only those changes that lead to an increase in production efficiency (and not only to an increase in human productivity) may be considered as technical progress. Production efficiency should be calculated by adding on extended costs (including the costs of protecting the natural environment) and not only calculating the running expenses of the enterprise.

A change in the criteria for the qualifications of technical progress is necessary since the assessment of enterprises according to the criterion of the growth in labor productivity was one of the basic causes of the excessive materials-intensiveness in industrial production and construction in Poland (two to three times higher than in other developed countries).

#### What Sort of Structure?

I view the direction of necessary and preferred structural changes promoting the creation of an effectively operating national economic complex differently than the authors of the given study. Variant A that follows presents the proposals of the authors of the study, while variant B gives my proposal:

Variant A: 1. The agriculture-food group. 2. Construction. 3. The power industry. 4. Transportation and communications. 5. The chemicals industry. 6. The electrical engineering industry. 7. The electronics industry.

Variant B: 1. The electronics industry, the precision tools and automatic equipment industry and the remaining subsectors of the electrical engineering industry. 2. The chemicals industry, including the pharmaceuticals industry, the cosmetics industry, the plastic masses industry and the petrochemical industry above all. 3. The agricultural and food complex. 4. Housing

and public construction, the building of warehouses and plants for upgrading products made from domestic raw materials. 5. The power industry. 6. Transportation and communications. 7. The timber, paper and printing industry.

Although I agree that the proposals of the "Forecast" are more attractive from the viewpoint of the current needs of society, if we take increased management efficiency as the optimal criterion, as the only way to improve and increase the degree to which society's needs are met over the long term, then we must select variant B as the variant that promotes efficiency better.

A radical change in the employment structure is needed in Poland that will not only give people work but will enable them to produce goods and services that meet the needs of society. This means cutting back on employment in the bureaucratic apparatus of the economy that is overly expanded at the current level of production engineering and low social labor productivity. It also means changing the trisector and subbranch structure to current worldwide practices in this regard.

A change in population and employment policy is also needed. Through the year 2000, all forms of policy that favor human reproduction should be abandoned since, at the current rate of growth of the population and the existing level of labor productivity in Poland, none of the proposed variants for development have the chance to succeed. We also must change the employment policy from one in which there is an abundance of workers and readily available manpower (the shortages occurring in this area at present are only apparent shortages as a rule) to one of a lack of workforce availability (by changing the employment structure). A lack of workforce availability is (or may become) a major element of the economic mechanism compelling innovation in our national economy.

My remarks should lead to the conclusion that speeding up the emergence of our economy from the crisis and creating conditions for Poland's effective development demand synchronized changes in the sphere of regulation (i.e., the consistent implementation of economic reform assumptions) and in the real situation (i.e., changes in developmental strategy, particularly in the sector of economic structure).

The experiences of 3 years of implementation of the current reform of the system of operation of the Polish national economy show that changes made in the sphere of regulation alone do not yield satisfactory (or even adequate) socioeconomic results. It is high time that we recognize that changes in the economic structure of Poland in a direction that is consistent with objective internal and external conditions, that is in harmony with the economic laws of socialism, but that takes into account the requirements of general laws in the area of structural change represent a decisive factor in the further effective development of Poland.

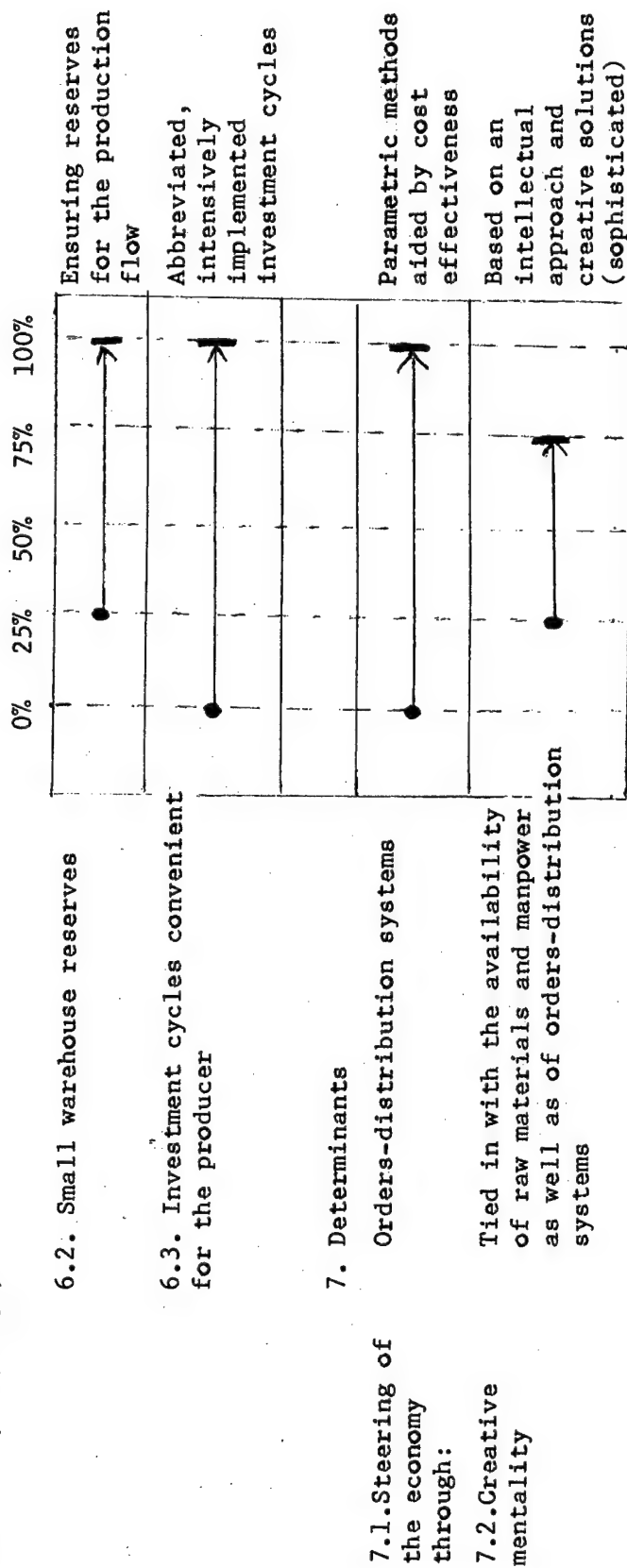
Table 1. A Proposed Industrial-Engineering Model for 1985-1995

<u>Problems</u>	<u>Previously existing model (SM)</u>	<u>Degree to which proposed model includes features of opposite model (PM)*</u> 0% 25% 50% 75% 100%	<u>Extreme opposite model (PM)</u>
1. Economic policy geared towards:			Limited credit and import potential from KK
1.1. Readily available credits and purchases from KK [capitalist countries]			
1.2. Availability of raw materials and power			Limited raw materials and power raw materials resources
1.3. Subjective producer profitability			Social effectiveness of production and utilization
1.4. New investments			Modernizations
1.5. Environmental protection considered minimally (forced)			Environmental protection and human health protection as an integral element of production and utilization
2. Gearing industry towards:			Comprehensive development of selected future subbranches and products
2.1. Privileged enterprises			Production geared to consumers and industry needs (or private needs). Large, intermediate and small plants
2.2. Quantity production (large plants)			

Table 1 (continued)

2.3. Quantity	Quality
3.1. The push for technical progress	The drying up of technical progress
3.2. Conventional methods of production and mechanization	Future-oriented methods of production, machining, automation and robotization
3.3. Licenses with KK	Domestic achievements. The experiences of KS [socialist countries]
3.4. The technical result produced (the individual subject)	Effect upon the consumer/social engineer (systems-type approach)
4. The maintenance of fixed assets based on: (the elimination of the repair gap	The priority of maintaining fixed assets
4.2. The production of machinery and the like	Replacement parts and assemblies
5.1. Traditional methods	Modern methods aided by ETO [Electronic Computer Equipment]
6.1. Extensive supplemental production by: import largely from KK	Domestic materials and components for the most part

Table 1 (continued)



Symbols: ● = position of the previous model; ▬ = position of the proposed model

\*The proposed model is located between the previous model (SM) and the extreme opposite model (PM). For example, in item 1.1, the proposed model includes 75 percent of the features of the extreme model (PM) and 25 percent of the features of the previous model (SM).

Warsaw ZYCIE GOSPODARCZE in Polish No 21, 26 May 85 p 9

[Commentary by Janusz Ostaszewski, deputy editor-in-chief, ZYCIE GOSPODARCZE]

[Text] The critical analysis of the "NOT Engineering Forecast" presented by Prof Stefan Marciniak does not consider a very basic issue: namely, the position on the reform, an item contained in a footnote to the document. In this footnote, the "Forecast" makes reference to the famous, if perhaps already forgotten NOT study (called here the "Position") on the directions of the economic reform published in PRZEGLAD TECHNICZNY Nos 11 and 12, 1984. Since the views expressed in this "Position" and their subsequent expansion in the polemics that followed publication are, in my estimation, revisionist in nature, they cannot be ignored in an analysis of the "Forecast." This is all the more true since polemics developed over these views, and in ZYCIE GOSPODARCZE as well, even before they assumed their final, concretized form (Marzena Kowalska and Tomasz Jezioranski, ZYCIE GOSPODARCZE, No 27, 1983; Tomasz Jezioranski, ZG [ZYCIE GOSPODARCZE] No 29, 1983; Kazimierz Ciosk, ZG, No 29, 1983).

Moreover, in 1983, in the columns of ZG (No 31, 1983), Stanislaw Albinowski took issue with the NOT views presented on behalf of NOT by the president of the organization at that time ("The Divisions Are Not That Simple"). Albinowski wrote that "... the NOT proposal... aims at restoring the administrative-orders system. I told the president... this is simply a political challenge that, for economic reasons as well, should not have any chance at all to be implemented. At the same time, I believe that the proponents of the reform, especially given this challenge, must give thought above all to what should be done to 'give the jump' to the reform. Otherwise all assurances that there is no going back from the reform will be unsubstantiated sloganizing."

This quote seems to have too much of a contemporary ring about it and not merely because in 1985 the editors of the "Engineering Forecast" did not think that the view of the reform from 2 years before should be changed. Let us recapitulate that view.

In the "Position" it is written that the fundamental assumptions of the economic reform are (I quote from PRZEGLAD TECHNICZNY) "adapted to the theoretical conditions occurring in other socioeconomic systems or present based on an incorrect assessment of the situation in Poland."

This idea, undeniably a shocking notion, was expanded upon in "An Open Letter to Editor Stanislaw Albinowski" (TRYBUNA LUDU, 28 February 1984), signed by the then chairman of the NOT NT [expansion unavailable] Committee for Economics and Economic Reform Affairs. It also was developed in PRZEGLAD TECHNICZNY, No 15, 1984, where the following question is asked: "... must the (system of management and the economic system--parentheses Janusz Ostaszewski's)... be reformed by transforming it into a system similar to the capitalist one?" Then the article continues that the avowed enemy of the planned economy has succeeded in forcing through many solutions that have effectively contributed to chaos and disorganization in economic life

and that only those that have wished for a long time to change not only the economic system in Poland but also the social system could aim towards such a reform of the economy.

This issue recurred at the last meeting of the Commission for Economic Reform affairs, discussed in the report on pages 1 and 4. Thus, I shall not repeat the answer given to this type of charge by Prof Baka, chairman of this commission.

One may envy the perseverance of NOT officials in persisting in views that are long obsolete. It would not be so bad if they really had something better to offer. Meanwhile, the analysis of Prof Marciniak demonstrates clearly that even there, where one may expect all good things from them, in the field of engineering progress, they state extremely flimsy and dubious proposals.

In concluding this "footnote," it is difficult to resist citing one more quote from S. Albinowski (TRYBUNA LUDU, 28 February, 1984) that reads:

"...the most dangerous enemies of progress in socialist Poland are those people that, while continually quoting the classics, do not understand or do not wish to understand the historical necessity of the continual adaptation of production relations to the state of the base... and the level of development, that hamper the introduction of that system of operation of our economy that will enable an increase in national income and public consumption by implementing economic incentives for increasing efficiency .... This attitude has no connection with... the type of profession practiced, but depends upon how one comprehends socialism."

Let this quote be for us a reminder today.

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POLAND

POLONIA COMPANIES: VALUE, PROSPECTS DEBATED

Warsaw POLITYKA in Polish No 18, 4 May 85 supplement POLITYKA EKSPORT IMPORT  
p 14

[Article by Jan Cipiur: "Foreign Companies; Slack Business, Vigorous Debates"]

[Text] Watching the foreign small businesses which operate in Poland, experts of the Foreign Trade Ministry conclude that, in the long run, a majority of those businesses are committed to the domestic market. Export-import transactions are regarded as supplementary actions which are indispensable insofar as they make this fundamental activity at all possible.

Export and import growth rates alike are now smaller than they used to be in the period of 1981-83. This may mean that Polonian companies are hitting the upper limit of their ability (or will) to sell their products abroad and to buy supplies from foreign manufacturers. It is difficult to say to what extent this is decided by objective ability and to what by subjective will. And, nobody can say for sure if this development has been largely triggered by regulations such as the one which obligates foreign companies to sell half the hard-currency revenue they earn in every transaction to the treasury at official exchange rates (a complaint voiced by the entrepreneurs), or if perhaps the attractions the still insatiate domestic market provides have been the most important factor in this.

Last year, companies with foreign capital increased exports by 45 percent and imports by 36 percent over the corresponding 1983 levels. But in 1983, they recorded 91 percent and 258 percent growth rates, respectively. Sales to hard-currency buyers last year slightly surpassed \$23 million, while imports amounted to \$26.4 million. Exports to socialist countries amounted to some 6.7 million transferable rubles (TR), against imports worth only TR 26,000. The share of foreign small businesses in total sales and purchases abroad is still only a fraction of one percent, though it is growing.

Goods account for 81.5 percent of total exports, the rest being services mainly in new-value re-export (this amounts to sewing clothes from textiles or hides brought over to Poland). Services sales grow at a higher rate than export of goods. What goods are exported by Polonian companies? They are chiefly wooden products, fruits and vegetables, nonusable bits of textile,

metal products and clothes--in this order of shares in total exports. On the imports side, textiles are followed by unprocessed foodstuffs, chemical raw materials, machines and equipment. Raw materials and components for production account for 77.5 percent of the total value of imports. In 1984, imports of capital goods were seen to decline slightly. Appliances of medium quality grade dominated these imports.

West Germany is the largest market for business Polonian companies do abroad. They sold 31 percent--and bought 29 percent--of their products and services in West Germany. As far as the socialist countries are concerned, foreign companied operating in Poland sold goods for nearly TR 2.3 million in the Soviet Union, and for TR 1.6 million each in Bulgaria and Czechoslovakia.

It should be pointed out that companies with a firm hold in the domestic market also do the greatest business abroad. One case in point is Inter-Fragrances, the biggest of all exporters last year, which recorded a foreign sales value of \$2.2 million and 1.1 million rubles. Selecta, a company working in the fruit-and-vegetable line but also offering cosmetics and clothes, recorded more than \$1.5 million, while Plastomed, which makes small medical equipment such as pipettes and feeders, earned 3.4 million rubles on its export deals.

This brief survey of facts makes one wonder about the prospects of exports and imports conducted by foreign companies operating here. Only some 4 percent of their business is done in foreign markets, and even this modest indicator has been declining in the last two years. Enterprises point an accusing finger at the present foreign-currency regulations, taxes, and even customs regulations. But the greatest barrier to exports, they complain, is that they are not allowed to use all of their hard-currency earnings. Members of the Sejm's Commission for International Economic Cooperation and Shipping, at a session devoted to this matter and held last March, recognized this as a legitimate complaint. Foreign currency earned in export transactions is used as a means of turnover. If they have to sell half of that money to the treasury, their turnover potential is affected, and this in turn may affect exports. The deputies suggested instead that foreign companies in Poland should perhaps have to sell half their net revenue, or half their profits in foreign currency, to the treasury. The entrepreneurs also demand shorter depreciation periods for their fixed assets on account of submitting these assets to very heavy duty throughout.

Watchdogs of the financial order, for their part, believe these are all exaggerated complaints. They supplied the deputies with statistics concerning profits recorded by Polonian companies to show that the latter truly have a "dolce vita" life. Their profitability, for example, in relation to turnover is 33 percent, against the economy-wide indicator of 7.1 percent or the 10.1 percent recorded by the entire small businesses sector. However, the deputies were not misled by these figures. They pointed out that these were aggregated data involving also companies exempt from taxes for a period of three years. A different picture will result if only those companies are considered which have been operating for more than three years. The Finance Ministry pointed out that only 27 percent of total profits were reinvested, and that this

indicator was achieved only because three-year tax exemption is contingent on the assignment of one-third of profits for reinvestment. As for depreciation, only two requests have so far been filed for shortening the depreciation period. Legal provisions, then, do exist, but enterprises don't use them because they lack the foundation. The treasury's final thesis was, exports should be increased, and so a whole gamut of tax breaks was introduced recently. But these should by no means be unaddressed tax breaks. They may be granted all right, but only for specific undertakings.

Those who attended the debates all remained committed to their previous views. As a reporter, I must admit I would rather not undertake the role of umpire to judge who is right. In disputes, people always tend to come up only with such arguments and examples which prop the given thesis. Yet it should be remembered that when laws on the operation of companies with foreign interest in them were being designed, the underlying hope was for a growth of imports and exports. Meanwhile, foreign transactions are slack, and the only vigorous thing about it all are the debates which are conducted about this matter.

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POLAND

POLES HOLD TALKS WITH WEST GERMAN BUSINESSMEN

Warsaw ZYCIE WARSZAWY in Polish 13 Jun 85 p 5

[Text] A Polish industry delegation led by Deputy Premier Zbigniew Szalajda has been continuing talks with West German businessmen.

The delegation, which is visiting West Germany at the invitation of Berthold Beitz, chairman of the board of the Krupp concern, has held talks with the directors of this and other industrial corporations, including Thyssen.

The main subject of the talks are the possibilities for future industrial cooperation, West German supplies of capital goods to Poland in exchange for Polish products, and scientific and technological cooperation.

The delegation is also planning to meet with West German government officials.

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POLAND

POLES, CHINESE SIGN METALLURGY AGREEMENT

Warsaw RZECZPOSPOLITA in Polish 14 Jun 85 p 2

[Text] A Chinese delegation headed by Metallurgical Industry Minister Li Dongye visited Poland between June 4 and 13 at the invitation of Poland's minister of engineering and metallurgy.

The talks held by the delegation in Poland proved that great opportunities exist for developing scientific, technological and economic cooperation between the Polish and Chinese metallurgical industries. China is interested in Poland participating in modernizing its iron ore and gold mines, open-hearth furnaces and refractory materials industry. Polish technology and equipment for the production of formed coke, along with loaders and other mining machinery, are to be delivered to China. Cooperation is also expected to be stepped up between Polish and Chinese experts in production of modern refractory materials and in many other sectors of metallurgy. For its part, Poland is interested in purchasing technology for injecting pulverized coal into blast furnaces; the introduction of this technology would result in considerable energy savings.

Concluding their visit to Poland, on June 13 the Chinese guests signed an agreement with their Polish hosts on cooperation in the metallurgical industries. Minister Li Dongye signed the agreement on behalf of China and Engineering and Metallurgy Minister Janusz Maciejewicz signed it for Poland. Also present was China's Ambassador to Poland, Wang Jinqing.

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POLAND

#### POLISH-YUGOSLAV TRADE TALKS

Warsaw ZYCIE WARSZAWY in Polish 17 Jun 85 p 7

[Text] PAP correspondent Tadeusz Sapocinski reports from Belgrade that Polish-Yugoslav talks were held there from June 11-15, to determine the main lines of economic cooperation (also known as plan coordination) and trade in the years 1986-90. Polish side was represented by the Deputy Chairman of the Government Planning Commission Jerzy Gwiazdzinski, with Deputy Director General Bozo Bojic of the Federal Planning Office representing Yugoslavia.

It was decided that there would be a growth in trade of some 60 percent in the next 5 years in comparison with the 1981-85 figures. This would mean much greater progress than had been originally expected.

Deliveries of raw and intermediate materials would account for some 45 percent of all goods traded, and another 45 percent would embrace an exchange of goods for ancillary production and goods traded under special cooperation agreements in the engineering and chemical industries. Trade in the engineering industry would center on electronics and electrical engineering, the auto industry, and construction and agricultural machinery.

Minister Gwiazdzinski told PAP correspondent in Belgrade that the talks were very constructive and positive. They provided a framework for continued mutual cooperation in the years after 1990. The higher volume of trade expected in the next 5 years proves that both countries' economies complement each other--a fact which should be useful for both Poland and Yugoslavia.

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POLAND

#### MINISTER DISCUSSES BASIC AGRICULTURAL PROBLEMS

Warsaw RADA NARODOWA GOSPODARKA ADMINISTRACJA in Polish No 5, 9 Mar 85 pp 1-4

[Article by Stanislaw Zieba: "Basic Agricultural Problems in 1985"]

[Text] Despite progress, particularly in recent years, Poland is not a self-sufficient country in terms of food supply. In striving to change this state of affairs, consistency in the implementation of a stable agricultural policy, outlined by the Ninth Party Congress and by a joint 11th plenary session of the PZPR Central Committee and the ZSL NK, has become essential in all undertakings in the area of agriculture and the economy. The implementation of this policy has been specified by the government program of agricultural and food economy development to the year 1990. It has been passed by the Sejm. In the program of socioeconomic development of the country for the years 1986-1990, which is currently being prepared, agriculture and the food economy must find a prominent place.

Agricultural and food economy issues belong to the primary topics in the work of provincial national councils. These councils, which are the veritable administrations of the land and are equipped with broad powers, are in practice responsible to the public for the state of the economy, including the food economy. Great importance is being attached to the influence of the councils on the general progress in the area of economizing, efficient management and limiting losses to a minimum. In agriculture and the food economy, these tasks are acquiring a particularly important dimension not only because of the needs but also because of the possibilities which they present.

The year 1985 will bring to a close a 3-year period of restoring to the economy a necessary balance and creating permanent growth trends. Agriculture has entered this year with positive results which outpaced the tasks of the CPR [Central Annual Plan] in all the more important areas of food and production and processing.

#### Positive Results in 1984

In 1984, agriculture achieved a gross production which had been planned for 1985. Owing to good harvests during the last 2 years, the country's grain-fodder situation has improved. The flow of all products of agricultural origin to the marketplace has improved and the start of a rising trend in

meat production has taken place on the basis of domestic crop production with a limited import of grain and protein-rich fodder.

The agro-food industry has surpassed its tasks in most areas, although it does not have its weaker spots. The efficiency of outlays for production has improved, particularly in the area of the PGRs [State Farms] whereas the national income produced in agriculture has surpassed the level prior to the economic slump. The balance of foreign trade revenues with agricultural-food products has undergone a significant improvement.

Nevertheless, despite the record production and procurement of grain in 1984, Poland still has to import 2 million tons of wheat and 1,200,000 tons of protein concentrates. The corn import is also essential for egg-poultry production. However, due to foreign-exchange difficulties, we are introducing particularly rigorous economy measures to fodder management. This troublesome import will have to be reduced further in favor of domestic crop production including, above all, grain and fodder.

We have rebuilt the systems of assistance for agricultural production development. Assistance by way of funds from the animal raising and seed production budget has been reintroduced. Farmers are making use of the Biological Progress Fund which was created in 1983. They can purchase quality seed grains and breeding material less expensively. The scope of subsidies for chemical fertilizing services, for liming the soil and for a series of agrotechnical procedures has been expanded. Seasonal discounts on fertilizer prices have been introduced while contracts between farmers and the state for animal products have been promoted by allocations of fodder and coal.

Procurement prices on agricultural products have been adjusted every year in accordance with the rising costs of agricultural production, which proves that in practice an active policy of shaping procurement prices on agricultural products is functioning. Production profitability is and must be maintained under conditions of efficient production. Every type of production is socially necessary and must be profitable to the farmer, especially as the technological methods of production become more functional and appropriate and the broader the scope of production becomes.

Despite the shortages in supplies, production capacity has improved markedly. The principles and conditions of the social protection offered to rural dwellers are improving. Social and legal conditions for the unhindered development of farmers' organizations, rural cooperatives, trade associations, women's organizations and youth unions--all independent of socio-professional administration have been created.

#### What Hinders Rapid Progress

Against the background of a generally positive assessment of the situation, we cannot overlook shortcomings, neglect and even serious irregularities which because of their nature may constitute a threat for the development of agriculture and the food economy and with the lack of energetic counter-action could hinder the attainment of production goals and agricultural performance as well as efficient management.

The first consideration is capital investment. The share of agriculture and the food economy in outlays for the development of the national economy, in accordance with the decisions of the Ninth PZPR Congress, is supposed to be 30 percent. This share is currently still considerably lower. Its size is also decided by the decisions made at sessions of the provincial national councils. There continues to be a large degree of involvement of investment funds in the continuation of many agricultural investments and those of the agro-food industry.

In general, investment cycles drag on. The turning over of building structures for use is delayed. Therefore, the mobilization of resources and efforts including work for the efficient implementation of investments in agriculture and in the agro-food industry is indispensable at all levels. Agricultural industries are suffering from insufficient funds for development. Meanwhile, in several provinces there is a practice of taking away from these enterprises and food processing units a part of the funds from depreciation allowances and allocating them for capital investments in other departments of the national economy. This occurs in a situation where leaving even the entire amount of depreciation allowances within these enterprises does not guarantee the direct reconstruction of production assets.

At its December session, the government reviewed and accepted a program of development for the agro-food industry for the 1985-1990 period. The ministry as well as provincial authorities are responsible for its implementation.

The indispensable range of investments in agriculture and in the agro-food industry will ultimately determine the possibility of strengthening the food market. We are preparing solutions that will make possible the accumulation of specific investment funds on centralized accounts in the individual sectors of the industry. These funds will constitute a source for financing indispensable new investment structures in the agro-food processing industry such as, for example, cold storage plants, mills, storage buildings and drying houses for grain, fat processing plants, potato and vegetable-fruit plants, sugar factories, etc. However, it is also essential that all possible funds which are at the disposal of the provincial authorities and provincial agricultural units be used to the fullest possible extent for financing the development of small plants of the agro-food industry. After all, sometimes it is a matter of many thousands of Zlotys or of credit assistance for, e.g., a gmina cooperative so that it may build silos for silage.

We also see the necessity of building small food processing plants on PGRs by small growers in a cooperative effort. This is a proven method of the efficient use of local raw materials and of improving the flow of consumer goods to the marketplace. I am proposing here a concrete agreement. The ministry will prompt its fish, horticulture, seed-producing and animal farms to set up their own network of stores. Provincial managers [gospodarze] should try to prompt the PGRs, which they oversee, to this end, and assist them in the allocation of building structures for trade name stores in cities.

This effort will pay us all abundantly in the form of public approval and support. There is evidence of this in Warsaw, Poznan, Szczecin and in other cities.

A second issue is the agrarian structure of farms. It is improving insignificantly; it is still a long way off from the elimination of the burdensome patchwork pattern of fields. In some regions of the country, land-use management and development of rural areas is not improving. The average farm area is increasing very slowly. Meanwhile, the process of intensification in the area of agriculture requires rapidly progressing changes in these domains.

Serious difficulties in achieving a higher production of goods result from the fact that nearly one-fifth of privately-owned farms do not sell their agricultural products at all on the socialized market. Some provinces sell barely 13 percent of the total number of hogs to the socialized market whereas other provinces (especially in the north and west) sell over 50 percent. A similar differentiation is taking place within the provinces themselves. Therefore, a detailed analysis of this phenomenon is desirable in the provinces.

The implementation of government decisions regarding the issue of improving living conditions in rural areas has not been taken up everywhere. This often gives rise to disproportions between the growing social rights of the rural population and the base of social services. In many provinces, particularly in the central and eastern part of the country, the network of agricultural schools is inadequate and the potential of the progress-promoting service is weak.

In view of these and other menacing circumstances, the continued concentration of efforts by the provincial authorities and local administration is indispensable for the positive formation of the program of agricultural and food management development.

I would, therefore, like to present the ministry's concept with regard to our cooperation with WRN [Provincial People's Council] and with administrative organs on complex agricultural matters, the solution of which during the current year and in the coming years requires not only mutual understanding but a partnership-like agreement for joint efforts.

#### Soil is the Basis

The basis for agricultural management is the soil--its improved use and full, intensive management. Hundreds of thousands of hectares have gone into the hands of young farmers in recent years. We have accomplished all this without receiving any orders owing to the development of the economic system, improvements in the law and in the work of the farmers and rural self-government, and owing to the observance of the principles of social policy. However, there still are not any interested land buyers, particularly in the western and southern areas of the country with poor soil. That is where it is necessary to promote private settlements and build new PGRs and develop the existing ones.

It is necessary to consolidate the land at a more rapid pace. This concerns 2 million hectares, which like a patchwork quilt pattern, are dispersed over the central and south-eastern regions of the country. The archaic land structure has imprisoned the farmer in backwardness; it does not permit mechanization, better productivity or adequate living conditions.

Therefore, consolidating the land and introducing changes lies in the vital interest of the farmers themselves. It is the primary responsibility of geodetic services. It requires support from provincial national councils, gmina national councils and of course, the ministry. We shall support the processes of increasing the land area of farms and various forms of their mutual cooperation and interbranch comanagement called for by the farmers themselves. However, before each act of consolidation, it is necessary to perform appropriate social and policy work. The last to enter the land should be the geodesist. Attempts at bringing the farmland together conducted from office desks did not bring any results.

For the effective implementation of these difficult, diversified tasks in the area of land management, we are strengthening the basic geodetic services. Improving the active service of geodetic services is the primary task of the overseeing headquarters for departments of land management and geodesy.

#### Priority Treatment for Land Improvement Investments

We have accepted soil deacidification, land improvement and plant protection as strategic directions in the functional use of the land. Today, the weakest element of the program is the neglected state of maintenance and improper use of water-improvement systems. Thus, to improve the situation, we have assured water companies all possible economic-financial preferences. Unfortunately, information on this subject is lacking. Currently, the most important issue is conscientious work on the part of these units and support for their work with essential technical equipment by the ministry. We will allocate all the heavy equipment which the ministry will receive in 1985 and as had been the case last year, for outfitting water-improvement enterprises and water companies.

The range of work must increase annually by at least 10 percent, from the current 100,000 hectares to 160,000 hectares annually in 1990. Water supply system work must be doubled even though there exists a rather large problem with material here. That is why during the current year we have increased by 20 percent the central reserve fund for improvement. Unfortunately, this decision has not received a similar response in many provinces. Upgrading and supplying rural areas and agriculture with water must have priority in programs of agricultural development in the provinces, and especially in their budgets. This is not always clearly evident.

There exist serious shortcomings in employment, in complying with the departmental regulations and also in the general functioning of development enterprises. Concern over work discipline and over the development of the potential of water companies, development enterprises and agricultural

construction ought to be our common tasks and the subject of periodic analysis and evaluation. The potential of development and agricultural construction should not be involved outside of agriculture, if it has overdue capital investments and unfinished tasks in the food economy. It should also be said clearly that the gmina responsibility of paying development fees is in part being treated too tolerantly. After all, it is this responsibility that decides about respect for property.

#### Crop Protection Determines High Yield

Increased crop output, as confirmed by experience in the GDR, Czechoslovakia and Hungary, must be achieved through the widespread use of quality seed and through the development of crop chemical protection, especially combatting fungal diseases in grain and potatoes, improving the farm economy with seeds and through the implementation of the sowing plan. Increasing the use of crops protection agents will make it possible to limit yield losses, which according to data from the Plant Protection Institute amount to at least 20 percent. This designates the responsibility of the regional administration and economic units for disseminating the use of protective measures on plantations, particularly of wheat, barley and potatoes. These cultivated crops, as opposed to others, were practically devoid of protection against diseases. The seed must also be 100 percent treated. We look favorable upon the initiatives of provincial authorities in acquiring and using on a regional scale lime and magnesium sources and we are striving for a government decision in support of this action.

The base of crop protection services is very limited. I feel that the lack of service potential in state machinery centers, in gmina cooperatives and also in agricultural circle cooperatives cannot be tolerated any longer. Supplies of indispensable equipment and tractors for the development of these services have been taken into account in the state plan. There are also vital decisions concerning the importing of plant protection agents. We will commit large sums of foreign exchange to this import. The task of expanding crop protection services and developing the base of these services should be placed on the calendar of pressing matters to be taken care of by gmina and provincial offices. Let us state clearly that to lose the issue of crop protection indicates, in practice, losing the struggle for high crop yields, especially grain and potatoes. This determines the direction of action to be taken. The WOPR [Provincial Centers for Agricultural Progress] must disseminate improved methods of growing grain, potatoes and fodder and industrial crops. The provincial sowing plan is of great significance here. Practice has confirmed that the use of quality seed and improved methods on farms of all sectors brings an increased yield of at least 15 quintals of wheat and 50 quintals of potatoes per hectare.

#### Strengthening Favorable Trends in Animal Husbandry

In the area of animal production, the basic task comes down to strengthening positive developmental trends in the number of hogs, sheep, and cattle. Let us state clearly that the scale of production growth will depend primarily on the growth rate of domestic feed, on improvement in the balance

of protein, progress in the reproduction of animals and efficiency in feeding. We will continue to systematically support contracted production with supplies of feed and imported concentrates. We anticipate support for the ministry by the provincial and gmina authorities in disciplining the farm economy's use of the imported feed.

As in the area of crop production, we already have in every province, proven, intensive methods of animal raising. The results of the leading farmers are downright sensational. For example, Boleslaw Kazimierz, a farmer and the national champion of animal production in 1984 who resides in Leszno Province, produces 3.5 tons of slaughter goods from 1 hectare of cropland with only a supplemental purchase of feed due him from contracting with the government. Such examples should be made a part of society and known on every Polish farm.

We will concentrate our attention on improving the reproduction and insemination of cattle. Between 1980 and 1981, we suffered great losses in this area; we were set back several years in planned reproduction. We want to help insemination, veterinary and crop protection services by setting aside for their needs an appropriate number of vehicles.

#### To Equal the Best

The organizing of agricultural commodity production will take place with our continual concern over improving contracting as an equal partnership system of relations between farmers and the national economy. We are referring to the kind of contracting that is promoted by the good work of raw material supply services, by functional supplies of the means of production and by the efficient and honest collection of harvests. Of course, this is primarily the task of the agro-food industry and of cooperatives. However, the state of things in this regard varies. This is another problem to be solved requiring the joint efforts of the ministry and of the regional authorities and their joint action.

Last year's procurement campaign exposed rather large difficulties with the drying and storage of grain despite the fact that it had been a dry year. Therefore, we are accelerating the construction of storage facilities at the PZZ [State Grain Elevators], in gmina cooperatives and on state farms and channeling appropriate funds for this purpose. Temporary, positive capital investment and financial solutions have been adopted in this regard. Therefore, the financing banks must analyze these needs more thoroughly and function very flexibly in the area of allowing credit for investments. The assistance of the WRN [Provincial People's Council] and of basic level national councils is essential in this field.

We must cooperate in lessening the great regional differentiation which exists in the level of production and in the efficiency of management. The aggregate solutions of state economic policy, hence of the credit system, of the farm tax and also amended principles of supplying goods with the means of production and with capital investment will contribute to this end. Above all, however, we must address this task to the regional agricultural service, to the WOPR and to economic units. We have completely turned over the state

agricultural consulting service to the social supervision of rural and gmina elements of the National Association of Farmers, Agricultural Circles and Organizations. The agricultural service must be responsible for spreading the best farming methods and for disseminating knowledge about the best farmers. Contests, exhibitions, excursions and farm animal exhibits to which we are returning--these are the best methods of spreading good work in all sectors of our agriculture.

#### A Chance for Small Agro-Food Plants

Modernization and the development of the agro-food industry and also the equally important intensive use of all installed production potential will ultimately determine the attainment of the development goals of the food economy during the years 1986-1990. From among 22 branches of the industry, the government set apart 9 in its December decision, which have particular significance and which determine the satisfaction of the basic food needs of the public. These nine branches must grow rapidly. These are the dairy, grain-milling, baking, fat processing, sugar, potato, vegetable-fruit, tobacco, and the refrigeration and food storage industries.

Because of the difficult economic situation in the country, the remaining 13 branches of the agro-food industry will be directed toward maintaining their production potential solely through overhauls and modernization, technical-organizational progress, improvement of management efficiency and efficient activity on all work levels. The most critical economic-financial and material-technical solutions which serve the development of the selected branches have been included in the central plan for the current year.

In this situation, the decisions of the regional authorities with regard to the development of small plants of the agricultural-food industry, will also be crucial. What is of importance here is effective support for the cooperative movement and for the trade industry which not only should but know how to manage local surpluses of agricultural raw materials and improve the local food selection.

Financing banks should show their active assistance by granting credit for these investments.

#### An Educated Farmer Produces More

Matters involving the education of farmers lie within the concerns of national councils. Positive phenomena appear in this field: increased employment of teachers, expansion of educational supervision and expansion of practical instruction. However, there are also negative phenomena and we must search for methods of eliminating them jointly in order to develop the network of agricultural education in many areas of the country, particularly the eastern regions; to combat the drop in recruitment to agricultural schools, to eliminate examples of agricultural instruction with little practical application and also to compensate for the enormous losses of 1980-1983 in the area of educating farmers and people working in the agricultural industry.

Facts prove that educated farmers produce twice as much and at one-third lower costs than the average. Together, let us treat this chance of less expensive, permanent production and social development of agriculture as a strategic direction of activity in the entire scope of agricultural policy. These matters are of particular importance to those provinces which because of a traditionally weak base or other inadequacies continue to educate two and even three times fewer people than they need.

#### Improvement in The Social Situation of Rural Areas

We are exerting great efforts in order that production and educational changes and agricultural progress be accompanied by an improvement in the social situation of the rural population. Progress is generally apparent, particularly in the balance between the social position of the rural population and the nonrural population in the legal-financial sphere. During the recent difficult period, the state also made a series of decisions including the very cost-intensive law on insurance and the pension system for farmers.

However, in this activity a lot depends on the state of the social infrastructure. Without its growth it will be difficult to balance the social position of rural areas. The state is not capable of meeting every need. Therefore, the essence of the government program which has been accepted and is being implemented is to help the budgetary fund with social acts and initiatives of regional and agricultural self-government.

That is why it is so important that councils support the activity of collective rural areas with the means and methods which are available to them. Of particular importance here is wise use of the gmina fund. This fund is created on the basis of the new law on farm taxes. It should also be noted that some provinces and many gminas do not yet have a concrete plan of action formed in the spirit of implementing the government program of improving the social conditions of the rural community. Therefore, it is urgent that work on such programs be started. A change in the situation for the better depends to a large degree on the national councils which are the social representatives of a given region.

#### The Specificity of Agricultural Management

The last problem which I would briefly like to present is the issue of better coformation by the ministry and by the regional authorities of the economic-organizational model of agriculture and of the food economy and also expansion of the social base of agricultural management. Together we must be concerned about the fullest possible inclusion of the specificity of agriculture and of the agro-food economy in the course of improving economic reform solutions. It is necessary to prepare the social groundwork for the understanding of this specificity. This entails at least four important issues.

First of all: the issue of placing upon agricultural enterprises the weight of the state professional activation fund together with an incentive wage system. Second, shaping the conditions of financing the development of enterprises. Third, improving the system of prices, subsidies and margins of profit. Fourth, improving organizational structures. Together we have already accomplished quite a lot in these matters. There are also government solutions to a series of particular economic-financial issues. However, there still exists here the vital active position of parent agencies and also of workers councils, management, trade unions and political organizations that the goal of the functioning of the agro-food industry and of agriculture be able not only to gain understanding but also approval by being taken into consideration in reform solutions.

Within the framework of improving and applying the principles of economic reform, public interest is and will continue to be treated above all else in comparison with branch interest or of individual units.

The provinces are not comparable. This is illustrated if only by the geography of production and consumption. The main consumer needs are in the country's industrialized south whereas the majority of agricultural production takes place in northern and central Poland. Therefore, what matters is extensive support through various means, of the central balance of food supplies and improving the principles of their distribution, particularly that of the basic food commodities such as grain, fat and sugar.

In these matters, better mutual understanding in the process of managing production and turnover on the national scale is necessary. Greater discipline is indispensable, particularly in the management of sugar, fats, flour and meat. It does occur that requests from governors for additional allocations of meat flow in to the central warehouse from those provinces where uncontrolled slaughter has expanded the most and where procurement tasks are implemented the worst.

Honesty in the self-assessment of work results is necessary here. Most certainly, an individual analysis of needs must be carried out. However, there is no doubt, and I can say this from my own on site working experience, that the best results are achieved by that ministry which unwillingly stretches out its hand for the fruit of the work of others better functioning provinces.

In presenting the outline of the complex problems of the development of agriculture and of the food economy for the 1986-1990 period and also in characterizing current basic problems, I am convinced that they constitute and will constitute one of the most important, although not the only problem of the work of provincial national councils and of basic level national councils. However experience teaches us that if the matters of agriculture and food supplies are working out positively then favorable conditions are formed for the entire scope of the sociopolitical atmosphere in the province and in the gmina. Thus, it is now possible to stress with satisfaction that the newly elected national councils are undertaking in their work the problems of agriculture and of the agro-food industry. The management of the ministry will exert efforts to actively and comprehensively support the efforts of the national councils and TOAP [expansion unknown] in this field.

POLAND

# MINISTERS ENDORSE RAILROAD DEVELOPMENT PROGRAM

Warsaw ZYCIE WARSZAWY in Polish 6 May 85 pp 1, 4

[Excerpts] The policy guidelines and program of actions for the development of transport till the year 1990 which were recently endorsed by the Council of Ministers are designed to adjust the transport sector's potential to the national economy's needs.

The first thing to be done is to halt the ageing of capital assets in the sector in order to begin with the job of adjusting its potential to demand for passenger and freight transportation from the middle of the upcoming five-year plan period onwards.

After several lean years, the transport sector will receive a next segment of the Central Railroad Main from Grodzisk Mazowiecki to Wyszogrod with an offshoot to Nasielsk, which will substantially relieve the overloaded Warsaw conurbation railroad network. Segments with highest overload coefficients will be supplied with extra new rail tracks, among others the segment from Warsaw to Legionowo.

In Silesia, work will begin on building a separate network called Regional Railroad Services for passengers. This undertaking, which is extremely difficult in terms of technology, will take ten years to complete. A new trunk line of great capacity will be built from Silesia to Gdansk via Kluczbork, Gniezno, Naklo and Chojnice. In all, 500 km of new track and extra lines will be built during the next five years.

The railroad network will be helped by yet another venture, which will make freight services more efficient, namely 16 more main junction stations are to be built or modernized. In the three-year plan, provisions are made for the construction and modernization of major track segments in six such stations. This involves not only land work or corrections of tracks but also the installation of state-of-the-art brakes and the gradual automation of switching routes. The important thing is that this state-of-the-art traffic control systems based on Polish-made systems and used Polish electronic parts. When tested in an experiment, a similar appliance at the Lublin-Tatary station has perfectly passed the test of life.

Railroad electrification will be vigorously promoted because transport development must necessarily rely on Poland's own fuel base. By the end of this year, 8,900 km of rail track will have been electrified. At least 3,000 km more track will be electrified in the upcoming five-year period. This means nearly half of all Poland's railroads will have been electrified by the end of that period. Replacing electric for steam locomotives on 100 km of track is equivalent to saving 107,000 tons of high-grade coal every year; or, 11,000 tons of diesel is saved if diesel locomotives are replaced by electrical ones.

Deliveries of rolling stock and locomotives have to be adjusted to these electrification plans. The transport development program requires that the domestic vehicle industry, which has in fact a long tradition here, in Poland, be revived. Imports, if any, should only be subsidiary, because in a country the size of Poland railroad development cannot be possibly based on foreign-made rolling stock alone. This is why the transport development program provides guidelines for the provision of Polish-made vehicles for the national railroad system. It is significant that the program has been released as a Council of Ministers document and that it is to be used as a foundation of work not only for the transport sector itself but also for transport-serving industries such as the production of locomotives and railroad cars.

CSO: 2020/51

POLAND

BRIEFS

NESTOROWICZ MEETS SPRY-POLISH TRADE OFFICIALS--Warsaw, June 21: The co-chairman of Polish-Yugoslav committee for economic cooperation, the Minister of Foreign Trade Tadeusz Nestorowicz and member of the SFRY Federal Executive Council Spasoje Madinica met at a mid-session meeting in Warsaw on June 18-21. The sides analyzed in detail the implementation of decisions made during last year's talks between chairman of the Council of Ministers, General of the Army Wojciech Jaruzelski and President of the Federal Executive Council Milka Planinc. The participants to the meeting noted with satisfaction the further development of bilateral economic relations, resulting in an almost 20 per cent increase of last year's mutual trade exchange in comparison to 1983. In 1984 the turnover reached the figure of 720 million dollars. It is expected that the turnover of 780 million dollars assumed in a trade protocol for 1985 will be fully accomplished. The sides also discussed the preparations to negotiate a long-term trade agreement between both states, based on consultations between their planning organs, which put the turnover for 1986-1990 at the level of 4.8 billion dollars. [Text] [Warsaw PAP in English 2126 GMT 21 Jun 85 LD]

CSO: 2020/199

ROMANIA

CHANGES IN STRUCTURE OF WORKING POPULATION ANALYZED

Bucharest REVISTA ECONOMICA in Romanian No 22, 31 May 1985 pp 5-6

[Article by Dr Gavril Horja: "Extensive Changes in Employed Population Structure"]

[Text] While passing through several historic stages of development during the years of socialist construction, under the wise and clear-sighted leadership of the Romanian Communist Party, Romania has made the enormous leap from being a bourgeois-landowner society to a comprehensively developed socialist society. This 40-year period, in the words of Comrade Nicolae Ceausescu, has been "the most grandiose and prosperous era in the entire historic and social development of the Romanian people." From being an underdeveloped country with backward industry and agriculture, Romania has become an industrial and agrarian country with a powerful modern industry and with a modern socialist agriculture in the midst of development within this relatively short historic period, and especially since the Ninth Party Congress. The economic strength of Romania as expressed in national income, the foundation of uninterrupted development of the country and of continuing improvement in the welfare of the people, is 32 times as high as in 1945.

The period of maximum prosperity of Romania, a golden chapter in the more than 2000 years of history of the Romanians, has been that of the last 2 decades, during which our party and state have been led by Comrade Nicolae Ceausescu, eminent statesman, fiery patriot, and brilliant strategist, whose presence at the helm of government is a sure guarantee of our socialist and communist future and of gaining an increasingly dignified position among the peoples of the world.

A Direct Link to Qualitative Development of the Economy

It is the conception of the PCR (Romanian Communist Party) and its secretary general that improvement in economic and social structures and the changes taking place in the structure of the employed population are essential conditions, not just effects, of intensive qualitative development of the entire national economy. The structure of the employed population in Romania, which is determined by the social division of labor, the development of production forces, and modification of the relationships among structural factors, and especially between increase in social needs and increase in labor productivity, reflects the major achievements themselves made in building a comprehensively developed socialist society on its way

to communism. At the same time, the profound changes in the employed population are having a significant impact on more efficient use of manpower resources and more pronounced increase in labor productivity, representing a factor in economic and social progress.

The original policy promoted by the Romanian party and state, which is subordinate to the historically important objectives of carrying out the party program of fashioning a comprehensively developed socialist society and advancing Romania along the way to communism, and of assuring all workers of a free and happy life, has brought about profound changes in the structure of Romanian society and has made a decisive contribution to establishment of new economic and social relationships based on community of fundamental interests among the new classes and social groups. The core of the far-ranging changes that have taken place in employed population structure in Romania, particularly over the period since the 9th Congress of the PCR, has been industrialization, a process without which the historic accomplishments and successes which we enjoy today would not have been possible.

Development of a harmonious and balanced national organism has been and is being assured by industry, which has become the leading sector of the national economy and is harmoniously combined with agriculture, and within industry by establishment of the correct proportions among the extractive, power engineering, and process industries, and between heavy and light industry, with all these sectors in optimum balance with construction, transportation, commodity circulation, services, scientific research, education, culture, and health care (including environmental protection activities). The improvements made in the technical and economic fields, on the basis of socialist ownership of the means of production, have led to radical innovative changes, quantitative but especially qualitative, in the social structure of the country and in the employed population. The most important of these changes is represented by the dizzyingly fast growth of the population employed in industry and by the reduction, within optimum limits, of the population employed in agriculture, as a result of industrialization of the country, modernization and intensive development of agriculture, and outfitting it with tractors, combines, and other machinery increasingly replacing manual labor and freeing the manpower needed by industry and other sectors. In contrast to 1965, when more than 56.5 percent of the working population was employed in agriculture, this sector currently employs 29 percent, while more than 71 percent works in industry and the other non-agricultural sectors. Even during the previous five-year plan, the population employed in industry exceeded that in agriculture. At the same time, during the years of socialism there has been a substantial increase in the percentage of personnel employed in education, culture, scientific research, health care, commodity circulation, and so forth (see Table 1).

Under the impetus of the technical and scientific progress vigorously promoted in particular since the 9th Congress of the PCR, a diversification of services and accordingly increase in the number of persons employed in such activities has been observed. The increasing percentage of workers employed in the service sector is also an expression of the great increase in

labor productivity, the economic and social development of the country, and elevation of the general level of civilization (see Table 2).

Table 1. Changes in Employed Population Structure by Sectors of the National Economy (in Percent of the Total)

Sector	1965	1983
Industry	19.2	36.7
Construction	6.3	7.6
Agriculture	56.5	28.9
Forestry	0.2	0.4
Transportation	3.1	6.1
Telecommunications	0.6	0.8
Commodity circulation	4.0	5.9
Public utilities, housing, and other non-production services	2.1	3.9
Education, culture, and art	3.5	4.0
Science and scientific services	0.5	1.1
Health care, social welfare, and physical culture	2.0	2.6
Administration	1.0	0.6
Other sectors	1.0	1.4

#### An Essential Factor in Modernization of Romania's Social Structure

On the basis of their equal position relative to the means of production and in their threefold capacity as owners, producers, and beneficiaries of the fruits of their labor, the classes and social groups in our socialist society have achieved a new social status, since they are friendly classes and social categories having convergent fundamental interests and aspirations and are closely united around the PCR as active participants in the conscious process of creating socialism and communism.

Thus, as a result of development and modernization through industry on the basis of the technical and material foundation of the new system, the massive investments applied especially in the productive sector, and the creation of new jobs, the working class has grown from 1.2 million in 1950 to more than 6 million at the present time, becoming the most powerful class of Romanian socialist society, representing nearly 60 percent of the total gainfully employed population of the country and 80 percent of the total labor personnel. As has been pointed out by Comrade Nicolae Ceausescu, not only has the working class become the numerically strongest class in Romanian society; new segments have also appeared in its structure as a consequence of the creation of new and technologically advanced sectors of production. Thus, nearly 50 percent of all industrial workers are employed in the mechanical engineering and chemical industries, ferrous metallurgy, and power engineering. About 84 percent of the labor force is skilled, this percentage rising above 90 percent in the most highly advanced sectors. Similarly, more than 43 percent of the country's workers have completed education in lyceums or in technical and vocational schools. At the same

time, the number of workers in agriculture reached more than 460,000 by the end of 1982.

Table 2. Changes in Employed Population Structure by Sectors of the Economy (in Percent of the Total)

Sectors	1965	1985
Primary (*)	56.7	29.3
Secondary	25.5	44.3
Tertiary	17.8	26.4

(\*) Agriculture and forestry

(\*\*) Industry and Construction

(\*\*\*) Other sectors of the economy.

Being master of the means of production and playing the leading role in the entire economic-social and political life of the nation, the working class makes a decisive contribution to creation of the national income and general development of the country. Being present in all the districts of the country, as a result of the policy of balanced and harmonious distribution of production forces over the entire territory, and having in its ranks a strong detachment of female workers representing on the average 40 percent of the total working class, in the context of worker self-management and application of the new economic and financial mechanism, the working class is having its leading role in the work of building a comprehensively developed socialist society and advancement toward communism raised to a higher level. In keeping with future attainment of the objectives set forth in the Directives of the 13th Party Congress and the programs for more pronounced increase in labor productivity and improvement in the technical quality of products, the working class will raise the degree of qualification and technical and scientific training to a higher level. The Romanian worker of tomorrow will be comprehensively trained and instructed, coming ever closer to the level of training of the engineer and the technical intelligentsia.

Completion of the process of socialist cooperativization of agriculture has entirely changed the social status of the peasantry, completely changing its way of life, thinking, and work. Having become a homogeneous class owning the means of production, the peasantry, freed forever from all exploitation and oppression and bound to great, modern socialist agriculture, continues to be the second social class after the workers, both in percentage of the total employed population and from the viewpoint of its role and importance in the economic-social and political life of the country. On the basis of continuing development and modernization of agriculture and complete mechanization and chemization, in the context of accomplishment of the new agrarian revolution, the work of the peasantry will to an increasing extent assume the characteristics of industrial work and will ultimately be transformed into a variety of industrial work. This is attested by the fact that 18 percent of the persons currently employed in agriculture engage in the trades of machine operator, combine driver, livestock

specialist, builder, irrigation motor pump technician, etc. In this process significant new changes will take place in the economic and social-political situation of the peasantry and in its technical, cultural, and intellectual profile. One major direction of evolution of the population employed in agriculture, to the extent of 27 percent, in keeping with the draft Directives of the 13th Congress, is represented by improvement in the age structure of the gainfully employed agricultural population and by professionalization of this population.

Considering the importance assigned to intensification of the qualitative factors of economic factors during the next five-year plan, on the basis of intensification of the activities of the scientific research apparatus and introduction of technical progress into all sectors, the role of science and technology, education and culture, the arts, and other activities contributing toward molding of the new man, as has been pointed out by the secretary general of the Party, the third social force of Romanian socialist society, after the workers and peasants, is represented by the intelligentsia. Constantly renewing its ranks with worker and peasant elements, the intelligentsia occupies a position of major importance, both in material production activities and in technical, scientific, cultural, and artistic creativity. Knit together by thousands of worker and peasant filaments and having the same basic interests and aspirations in common with the entire people, the Romanian intelligentsia is to make a greater contribution to implementation of the Party program.

#### A Scientific Strategy for Developing Human Resources

In keeping with the fundamental objective of the 1986-1990 five-year plan of continuing vigorous development of the forces of production and equipment and material resources, of carrying out the general lines of the Party program for fashioning a comprehensively developed socialist society, and of creating the conditions necessary for future transition to the higher stage of society, building of communism in Romania, new qualitative changes will take place in the employed population structure on the basis of which attainment of this objective will be ensured. Thus, of the population employed in the national economy, to reach 11.5 million persons in 1990 representing 48 percent of the total population of the country, about 73 percent is to work in the non-agricultural sectors.

During the next five-year plan the creation of new jobs will increase the number of workers to 7.8 to 7.9 million persons, and action will continue to be taken to ensure establishment of the optimum proportions among the main categories of personnel, by increasing the percentage employed directly in production. Occupational training of about 2 million persons will be carried out over the 1986-1990 period, including 1.2 million skilled workers, technicians, and foremen and 146,000 engineers and other personnel with higher education, especially for the basic sectors (mechanical engineering, metallurgy, and the mining, petroleum, chemical, and construction materials industries). At the same time, 590,000 skilled workers will be trained for agriculture.

New changes will also take place in the employed population of the country in accordance with the tentative guidelines for development of Romania over the 1990-2000 period and for placing even greater stress on all the qualitative aspects of activities in all spheres of economic and social life. Thus, on the basis of universal introduction of the lyceum system by the end of the century, Romanian education will train the younger generations in more trades and specialties on the principle of education in multiple technical disciplines and multiple qualification, to make it easier to shift from one activity to another in keeping with the specific needs of production and social life. The system of recycling professional knowledge will in its turn be organized so as to permit prompt worker adaptation to professional changes made necessary by technical progress. Elevation of the level of instruction of the entire population will thus represent a qualitative modification in the nature of the division of labor at the level of the national economy, in full assertion of human personality and better satisfaction of the general interests and requirements of society.

At the same time, as a result of the process of territorial organization and systematic arrangement of all the localities of the country, and of integrated mechanization of agricultural work, the working conditions of town and countryside will be brought closer and closer together. On the basis of development and modernization of production forces, mechanization and automation of production, and increase in labor productivity, new changes will take place in the essential differences between physical and intellectual work, with the working class, the peasantry, and the intelligentsia, all social classes, brought ever closer together.

The concerted efforts of the entire nation will thus create a material foundation for the thesis of exceptionally great theoretical and practical importance advanced by the secretary general of the Party, Comrade Nicolae Ceausescu, in the report delivered to the 13th Party Congress, to the effect that elevation of the level of professional and technical training on the basis of the latest achievements of science represents a decisive factor in economic and social development and in successful creation of a comprehensively developed socialist society and transition to the building of communism in Romania.

6115

CSO: 2700/168

ROMANIA

## EXPERIENCES OF SPECIALIZED AGRICULTURAL UNITS

Bucharest REVISTA ECONOMICA in Romanian No 22,31 May 1985 pp 13-14

[Article by Dr N. Brasoveanu: "Implications of Narrow Specialization in Agricultural Production"]

[Text] The form of social division of labor among the various sectors of agricultural production, specialization in production, is characterized by priority development of a particular sector or crop, with production concentrated to the degree allowed by the natural and economic environments and ensuring that the enterprise will be economically efficient.

This economic process presupposes the creation of specific products, application of uniform technologies, use of specialized material resources, and employment of specialist personnel. When the organization of the production process resembles that applied in industry, specialization in agricultural production may be narrowed to the point of establishment of agricultural enterprises such as hog raising complexes, integrated poultry raising enterprises, and so forth, with generally positive economic results. In the socialist sector of agriculture this rigorously specialized form of agricultural enterprise is represented by the intercooperative economic associations (AEI), specializing in turning out a single product (milk, meat, eggs, vegetables, fruit, etc).

In livestock production the intercooperative economic associations for milk production are organized on the basis of contribution by the associated agricultural cooperatives of the land intended to be the location of the new facilities for livestock raising and production of bulk feeds for the AEI, participation in formation of the social product of the association, supply of livestock and feeds by the association at the contract price, or in the absence of a contract, at the procurement price, and provision of the necessary manpower. The associated cooperatives are entitled to receive a share of the profit earned by the association proportional to the share of capital invested by them and to purchase at cost materials produced by the AEI. The cattle-raising and sheep-growing intercooperative economic associations have pastures, hayfields, and arable land for production of almost the entire amount of bulk feed crops; feed concentrates are supplied for the most part by the participating cooperatives.

This form of organization of socialist agriculture benefits from the advantages of concentration and specialization in agricultural production, from the viewpoint of large-scale creation of means of production, manpower, agricultural production, scientific organization of the production process, and more efficient use of modern equipment and technology. To the extent that the associated agricultural cooperatives maintain the numbers of heads of production livestock, within their respective associations, at the level required for proper conduct of economic activities, they meet their own consumption needs and commodity output requirements out of internal production and receive the profits due from the AEI.

However, because of a distorted idea of the profitability of agricultural production, some agricultural cooperatives have completely abandoned the raising of milk cows, transferring all of their reproduction stock to the intercooperative economic associations. At the level of the respective agricultural cooperatives, this violates primarily the principle of interdependence of the crop and livestock branches, which calls for consumption by livestock of the large volume and variety of secondary products resulting from crop growing, and conversely provision of crop production with the fertilizers resulting from livestock raising. With this mode of organization of socialist agriculture, difficulties are also created in the activities of the intercooperative economic associations, since any increase in the number of cows leads to increase in the area needed for raising fodder crops, and accordingly in the average hauling distance and the costs per unit hauled, with the attendant impact on the economic efficiency of concentration itself. In addition, the characteristic of horned cattle, and of milk cows in particular, of generating a large volume of waste, automatically leads (in the case of large AEI) to deficiencies due to insufficient disposal in the immediate vicinity. The hauling distance for disposal is longer, and the additional costs accordingly higher. At the level of the agricultural production cooperatives (CAP), the difficulties are much greater, affecting the production structures, field engineering and introduction of crop rotation, and the entire system of agriculture.

We substantiate these problems with 1984 data on the structure and volume of livestock production in agricultural production cooperatives and intercooperative economic associations for livestock raising under the Seieni Unified State and Cooperative Agroindustrial Council (CUASC) in Maramures District.

The data in Table 1 show that all milk cows are concentrated in the two intercooperative economic associations; the agricultural production cooperatives have no horned cattle whatever. Some of them have only sheep, and the Tautii Magheraus CAP even has no sheep.

The decrease in the number of livestock to the point of complete elimination of cattle, a basic species in rational livestock raising, has resulted in significant disruption of the economy and organization of the agricultural production cooperatives in question.

Table 1. Livestock of Seieni CUACS (Maramures) (in Number of Heads)

Item	Cattle	Sheep	Horses
Cicirlau CAP	---	734	6
Seieni CAP	---	1,691	15
Tautii Magheraus CAP	---	---	12
TOTAL CAP	---	2,425	33
AEI Seieni (milk cows)	692	---	---
AEI Tautii Magheraus (same)	808	---	---
TOTAL AEI	1,500	---	---
TOTAL COOPERATIVE SECTOR (CAP + AEI)	1,500	2,425	33

Since the agricultural cooperatives under the council in question have no cattle and sheep, or have only sheep and very few horses, the pastures and hayfields (covering areas of 500 and 1000 hectares respectively) are not used to their full capacity.

Since they have no cattle, the main grass-eating species, the cooperatives referred to have no provision made in their crop plans for arable land for growing fodder crops. Their crop structure is greatly restricted, being characterized by the following proportions: wheat and rye 33.7-37.2 percent, barley 9.3-12.7 percent, corn 25.4-42.3 percent, potatoes 4.2-6.2 percent, peas 4.1-10.8 percent, and in one of the cooperatives beans 1.7 percent and flax plus fiber hemp 8.3 percent. The restricted range of bean crops and the absence of perennial fodder crops result in unsatisfactory crop rotation arrangements.

It should be noted that crop rotation is carried out chiefly with bread grains and row crops, these basic crops for the most part having no preceding crops such as bean legumes or perennials, which possess biological fertilizing properties. This is due to the circumstance that, in the absence of cattle, the agricultural cooperatives in question have no plans for growing clover, which could have considerably improved the crop rotation arrangement. At the same time, fodder crops, among which perennial crops predominate, occupy 85-89 percent of the arable land in the intercooperative economic associations in question. The crop plan as a whole comprises 5-6 fields with perennial grasses, one field with annual fodder crops, and another with corn, or a single field with corn and annual fodder crops. Thus we see that, while in the AEI perennial fodder crops biologically fertilize the soil for a period of 5-6 years for one or a maximum of two annual crops, the associated cooperatives have the lowest crop rotation efficiency, based chiefly on rotation of grain corn, and this under conditions in which the state reserves of agricultural crop products are created chiefly in agricultural production cooperatives and state agricultural enterprises.

The gley soils on the Somes terraces and the brown forest soils typical of the Gutii piedmont region, within the arable land area of the agricultural

cooperatives under the Seieni CUASC need organic fertilizers above all in the fertilization system. Such fertilizers also tend to improve the structure of these heavy and cold soils. However, because of the absence of cattle, the main source of fertilizer of this kind, the necessary reserve of barnyard manure is not provided. This is shown by the fact that in 1983 only 62 hectares out of a total of 347 hectares of arable land in the Cicirlau CAP, and 107 of a total of 611 hectares in the Seieni CAP, were fertilized with barnyard manure. Hence organic fertilizer is applied to the same land only once every 6 and 10 years respectively, as against the normal period of 3-4 years. The deficiencies are aggravated by the circumstance that the amount of barnyard manure applied per hectare did not exceed 16 tons in two of the three cooperatives studied.

Table 2. Crop Rotation

CAP Cicirlau			CAP Seieni			CAP Tautii Magheraus		
Field	ha	Crop	Field	ha	Crop	Field	ha	Crop
I	78	Wheat	I	91	Wheat	I	33	Wheat
II	84	Potatoes, peas, corn	II	107	peas, beans			Corn
						II	31	peas, potatoes
III	77	Wheat, barley	III	108	corn, wheat	III	33	Corn
IV	84	Corn	IV	100	Corn	IV	31	Corn
			V	99	Wheat, barley	V	35	Corn
			VI	100	Corn, potatoes	VI	38	Wheat
						VII	35	Corn
Total	323	--	Total	605	--	Total	236	--

At the same time, a twofold fertilization process takes place in the intercooperative economic associations, the biological contribution made by the perennial grasses and the action of the barnyard manure. The arable land planted chiefly with clover, itself a biological fertilizing agent, undergoes both forms of fertilization.

It follows that, while a surplus is recorded in the fertilization budget in the intercooperative economic associations, the agricultural cooperatives post shortages of the resources in question.

The transfer of all cows to the intercooperative economic associations has resulted in disuse of 4 barns with a capacity of 300 square meters at the Cicirlau CAP, 4 barns with a capacity of 450 square meters at the Seieni CAP, and 3 barns with a capacity of 300 square meters at the Tautii Magheraus CAP, to which are to be added the husk tanks, milking basins, feed silos, and other basic equipment whose value needlessly increases the production costs of these units as a result of depreciation.

The narrow specialization of the agricultural production cooperatives and the intercooperative economic associations, in the form of application of

linear agriculture marked by concentration almost exclusively on crop growing in the agricultural cooperatives and by a livestock production structure without the possibility of providing concentrated feeds in the associations in question, has distorted the cyclic nature of agriculture based on combining crop with livestock production, this leading to the deficiencies observed in the economy and organization of enterprises of this type.

To eliminate the implications noted, it is necessary to restore the number of heads of production stock, and especially cattle, in the agricultural cooperatives at least to a level ensuring consumption of secondary crop output and disposal of the surplus barnyard manure. If livestock production is reorganized, it will be possible for the agricultural cooperative units to set aside the arable land needed for fodder crops and re-introduce clover, a meliorative crop yielding the greatest effect in biological fertilization and restructuring of the soil, into the crop structure.

The two foundations of biological agriculture, barnyard manure and meliorative crops, will thus be built up to the necessary level, and the proportions and advantages of the two types of agriculture, intensive and biological, will be sensibly combined.

The intercooperative economic associations, which have large numbers of production livestock, surplus organic fertilizers, and high potential for biological fertilization of the soil, can grow crops for production of feed concentrates (corn, bean crops) at the level of the needs generated by the requirements of livestock production and complete use of existing sources of fertilization.

This would ensure practical application of the instructions given by the party secretary general, Comrade Nicolae Ceausescu, that every agricultural unit be outfitted with production livestock and with the requisite feed resources, in keeping with natural and economic conditions.

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ROMANIA

QUANTITATIVE, QUALITATIVE IMPROVEMENT OF AGRICULTURE SOUGHT

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[Article by Ovidiu Popescu, deputy director in the Ministry of Agriculture and the Food Industry]

[Text] The broadened plenum of the National Council for Agriculture, the Food Industry, Silviculture and Water Management, convened on the initiative of the party's secretary general, Comrade Nicolae Ceausescu, took place in a period of deep significance, marked by completion of 20 years since the historic 9th party congress--which opened the era for great achievements in building modern Romania--and by the enthusiasm with which our people are taking action to conclude the current five-year plan as well as possible and to place a lasting base on 1986 production and to have steadfast fulfillment of the goals set by the 13th party congress.

In the spirit of the guidelines and indications given by Comrade Nicolae Ceausescu on intensive use of the land, the most efficient possible utilization of the material-technical base and labor force, generalization of the experience of the leading units and results obtained by scientific research, the plenum examined the activity carried out until now with a great sense of responsibility and in a critical and self-critical spirit and it established the measures which will continue to be taken for the good preparation and flow of the summer and fall campaigns, for complete fulfillment of the plan for agricultural production and food industry, the export tasks, the investment proposals and indicators of economic efficiency as well as for timely preparation of next year's plan.

The participants in the discussions reported that, despite the more difficult winter conditions, as a result of the development and continued modernization of the material-technical base, this year's spring agricultural campaign took place under short schedules, the projects were of good quality, and the density of the crops is appropriate; currently all attention is being given to intensifying the projects to maintain crops by mobilizing the entire manual labor force from the villages and by using the existing mechanical resources to their entire capacity. The experience of the leading agricultural units has shown that hoeing done on time equals a good rain. The entire peasantry is participating wholeheartedly in the good development of field projects, projects in the vegetable gardens, in orchards and vineyards in order to help the crops

develop normally and to preserve moisture in the soil and combat weeds. At least three hoeings are being done on all the lands cultivated with weeder and even four hoeings where conditions require it.

Special attention is being given to intensive crops of corn, sunflowers, sugar beet, potatoes so that the highest possible output per hectare is obtained on the particular areas.

Bearing in mind the accentuated draught produced during the month, particularly in Romania's southeastern area, it is necessary to exert all efforts for the sensible use of all water resources, installations and simple resources in order to have precise achievement of the wetting program.

#### Exemplary Preparation of the Summer Campaign

The summer campaign, which will start shortly, requires a large and complex volume of projects which require the mobilization of all village residents, use of mechanical resources at their entire capacity, the exemplary organization of gathering the harvest on time and without losses as well as carrying out of the other specific projects in a short time and of good quality. In accordance with the program adopted, stalky grains and other crops will be harvested from more than 3.5 million hectares in the socialist sector alone, nearly 3.1 million hectares will be freed of straw, the land will be ploughed and prepared and double and successive crops will be sown on 2 million hectares, and summer ploughing will be done on more than 1.5 million hectares; added to this is the harvesting of seasonal fruits and vegetables--which already have begun--as well as of fodder. In order to carry out this volume of projects, more than 120,000 tractors will be provided and more than 47,000 combines, numerous other machinery and equipment with which the complex aggregates will be organized in order to do more than one project with one move, with a view to reducing the specific consumption of fuels. Efficiently using working time, a daily speed of 149,000 hectares must be achieved for the harvesting of barley and 274,000 hectares for the harvesting of grain so that the particular projects can be carried out in 4 days for barley and 6-10 days for grain; freeing the land of straw must be done in 4 days for barley and 11-13 days for grain while the ploughing, preparation of the land and sowing of double and successive crops must be done in 48 hours following harvesting of the preceding crop and not later than 5 July.

Bearing in mind the small amount of stalky grains in many of Romania's zones, special attention is to be given to appropriately regulating the combines, to cutting the crops as low as possible and to gathering the entire quantity of chaff. Manual harvesting is to be done along with mechanized harvesting in the phase of ripening the areas with fallen crops, those with clusters of weeds or those which cannot be mechanized. Transporting of the harvest is to be done directly from the combines to the set storage places, with a large volume to be achieved with the socialist agricultural units' own means of transport.

Fulfillment of the double-crop program this year involves special responsibility. Effective action must be taken to gather the entire quantity of straw and chaff together with harvesting in order to free and prepare the lands and to carry out the sowing. Placement of double crops must be done on a priority

basis on the areas where the cereals have been cultivated under irrigation conditions. In this regard, the application of the techniques specific to double crops are to be followed as well as respect for sowing schedules and application of the wettings forecast.

#### Animal-Raising--A Priority Area

Analyzing the activity carried out in zootechnics, the plenum felt that this year action has been taken with more firmness in light of the indications and guidelines given by the party's secretary general, obtaining some good results in increasing the numbers of animals and in animal products. Despite this, some shortcomings continue to exist, primarily in the preparation and administration of fodder, in application of techniques, in the care and giving of veterinary health assistance. The average milk and wool productions are low while the average difficulties in animal slaughter are below the level forecast. As Comrade Nicolae Ceausescu stressed, annually a large quantity of meat is lost and a larger number of animals are being slaughtered. There are large shortcomings in beekeeping and sericulture, for which there have been big failures year after year. The special development program for beekeeping has missed being fulfilled by nearly 70,000 hives as a result of the poor concern of the state agricultural enterprises and agricultural production cooperatives in the area of multiplying bee families and providing trained cadres. In sericulture, where only around 40 percent of the program was fulfilled last year, measures have been taken to totally provide and distribute the silkworm eggs for the series I of raising and for application of agricultural improvement projects on the intensive mulberry plantations; some actions of cooperation have been concluded between the agricultural production cooperatives and other units for joint usage of the nourishment sources and areas intended to raise silkworms. But these actions still have not given the anticipated results.

There is the possibility that by the end of this year many of the shortcomings existing will be remedied through sustained mobilization of the forces in the direction of creation and rational and complete use of the material-technical base, which would guarantee complete fulfillment of the plan in this area. Measures are to be taken to improve animal reproductive activity by having complete assurance of the number of reproducers needed, by extending artificial insemination for cows and sheep, by strict fulfillment of the sow-mounting program with a view to obtaining summer births, by appropriate organization of the mounting campaign for sheep in June-July and by providing conditions for completely preserving the gestation periods for cows and calves.

With a view to providing the fodder needed, measures are to be taken to have complete fulfillment of the sowing plan for double and successive crops, giving special attention to placing them on irrigated lands. Action will continue in all the agricultural units for harvesting of the clover from the following mowing times and of the natural hayfield, organizing activity by specialized formations and generalizing methods indicated for storage and preservation.

The increase in zootechnical production and its efficiency means improvement in the fodder system, particularly by putting the animals out to pasture in the spring-fall period. In this way expenses will be saved in harvesting and transporting of the fodder to the stable. Extending this fodder system makes

it necessary to have pieced grazing and on parcels, using electric fences on a compulsory basis.

On the other hand, the creation of optimum conditions for raising and working of the animals involves decisive actions in the direction of modernization of the zootechnical farms.

### Superior Utilization of Agricultural Raw Materials

Analyzing in a critical and self-critical spirit the way in which the plan provisions are being carried out in the area of the food industry, the plenum pointed out the requirement to do everything to provide the necessary raw materials, to use all production capabilities more efficiently and to improve the quality and diversification of production.

Stressing the special importance of fulfilling the single programs to increase agricultural production on the personal plots of the members of the agricultural production cooperatives and on the individual peasants' plots, programs worked out on the initiative of Comrade Nicolae Ceausescu, the plenum required all those holding land, regardless of the form of ownership, to substantially increase the contribution to establishing the state fund.

Special attention must be given to providing the state fund with agricultural food products, to fulfilling the contracts on time but, more important, to taking the contracted products. All conditions must be created so that the peasant plots in the noncooperativized zones are contracted and also that all the products contracted are handed over to the state. The current form through CENTRO-COOP has proven not to be the most appropriate one and, for that reason, as Comrade Nicolae Ceausescu, the party's secretary general, pointed out, we must "have the Ministry of Agriculture and the Department for the Food Industry fully assume their responsibilities in contracting for milk and animals as well as for taking over these products."

Developing the good experience of collectives in the enterprises and research on superior utilization of raw materials, and on complete processing of sub-products and orientation of the structure of production in accordance with the requirements of domestic consumption and export requirements, the participants in the discussions made a commitment that these goals should be a priority and permanent concern. The complete and superior utilization of raw materials is not a campaign action achieved by itself; it must be organized and led with perseverance, mobilizing all the responsible factors in this direction.

### Higher Economic Efficiency

The plenum analyzed with high exactingness and responsibility the economic and financial results until now and established the measures for firm application of the new economic-financial mechanism for raising the profitability of each product and all economic activity of the agricultural and food industry units.

Implementing the new economic-financial mechanism requires that action be taken with all firmness for placing all economic activity on the principles of self-leadership and self-management so that each unit obtains a growth in economic efficiency and profitability.

Particular emphasis must be placed on increasing production and incomes, on complete use of the land and production resources, achieving an appropriate correlation between production, incomes and expenses. Greater attention is to be given to reducing the consumption of fuel, energy and other materials, seeking strict respect for the consumption norms and standards, for eliminating waste as well as reducing to the minimum the administrative-management expenses. The entire effort is to be concentrated in the direction of applying the financial standards by products in order to provide financial balance. The leaders of the agricultural units will be able to incur production expenses within the strict limit of the financial standards approved. As Comrade Nicolae Ceausescu, party secretary general, emphasized, it is necessary for "us to do everything so that, in agriculture, too, the socialist principles of salary and bargain by the job are applied more firmly and that the incomes of all those working in this sector are directly linked with the more powerful increase in production."

A major problem of our activity is providing a young and qualified labor force; it is necessary that more sustained activity be put forth so that an appropriate number of young people remain to work in agriculture and graduates of the agricultural-industrial secondary schools even starting next year are attracted to remain in the villages and proper working conditions are provided for them as well as a salary depending on the production obtained. In order to ensure the stability of the cadres in the villages, small industry is to develop with the goal of employing the labor force in the periods when there are no peaks of work in agriculture.

#### A Lasting Base for the Future Harvest

Another important goal of the discussions during the plenum was establishing the main directions of action which would lead to fulfilling the plan for 1986 under good conditions, the year which is the first of the next five-year plan, worked out in the spirit of the directives of the 13th party congress and on the basis of the guidelines, indications and under the direct guidance of Comrade Nicolae Ceausescu.

The basic goals of the development of agriculture in the next five-year plan have in mind a substantial growth in agricultural production by introducing the results of scientific research, carrying out a vast program of land improvement, strengthening all the socialist agricultural units economically and organizationally and increasing the contribution of the population's plots to achieving production and forming state funds of agricultural products.

With a view to fulfilling these tasks first what are necessary are decisive measures to increase arable area, to increase the production potential of the land and of the varieties and hybrids used, to increase the percentage of irrigated areas as well as to increase the contribution of chemical and natural fertilizers, which would be used to a greater extent than until now. In order to achieve this production, as Comrade Nicolae Ceausescu stressed in his speech to the plenum, a new way of thinking and of action are needed as well as rejection of old techniques and adopting of new ones, carrying out projects in the optimum periods so that all vegetation factors have the optimum conditions for being carried out. An intensive agriculture cannot be achieved without

doing all the agricultural projects under good conditions. Only in this way can we obtain in the coming years a grain production of 28-30 million tons, higher production for technical and other crops, average outputs of 8-10 tons of grain and 20-25 tons of corn cobs per hectare and on increasingly larger areas.

A more emphatic growth in number of cattle and sheep was kept in mind in setting the number of animals; a more moderate increase will be seen in poultry and the numbers of hogs will be preserved, since their level satisfies the needs of the economy and are correlated with grain production. Given the decisive importance of feeding the animals in achieving the planned production, the plan provides for a substantial improvement in fodder base. The need for concentrated and volume fodder will be provided to a greater extent by increasing production per hectare, by extending the areas for crops rich in protein (soy and clover)--in order to give up the importing of protein--as well as by complete utilization of fibrous fodder. As indicated by Comrade Nicolae Ceausescu, we must give special attention to the more than 4 million hectares of pastures and natural hayfields for a substantial increase in green fodder production.

For the purpose of satisfying the consumers' requirements under better and better conditions as well as of providing a rational nourishment for the population, the food industry will continue to diversify its products; the research institutes, together with the production units, must create new varieties which answer a normal physiological consumption linked with the food conditions and traditions specific to each zone of Romania.

Also, as emphasized at the meeting of the Political Executive Committee of the RCP CC on 4 June 1985, it is necessary that parallel with carrying out the campaign for gathering grains, projects must be carried out on time and be of appropriate quality for freeing the land, for sowing double crops, for irrigation and for maintaining the prolific crops and harvesting vegetables and fodder.

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